GIG CYMRU NHS WALES
Iechyd Cyhoeddus Cymru
Public Health Wales

Child Measurement Programme 2023-2024

This report summarises the data collected across Wales during the 2023-2024 school year

Version 1.0
Mae'r ddogfen yma ar gael yn y Gymraeg/This document is available in Welsh

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Thank you once again to the school nursing teams, staff in schools, and of course the reception class children across Wales.

Contents

Key Points

- This report summarises population level data of the key findings of the Child Measurement Programme (CMP) for the 2023/24 academic year for the purposes of surveillance.
- All children aged 4-5 years attending reception class and residing in Wales were offered routine height and weight measurements by school nursing teams. These data are reported Nationally to facilitate surveillance.
- For Wales overall, there was a return to pre-pandemic participation with 93.4% of children being weighed and measured this year.
- In Wales as a whole, the proportion of children with a healthy weight was 73.5%, which is a slightly lower proportion compared to last year (74.3%) but statistically significantly higher than pre-pandemic levels (72.4%).
- In Wales as a whole, the proportion of children with overweight or with obesity was 13.7% and 11.8% respectively.
- The proportion of children with obesity in Wales was higher than that reported for England and for Scotland.
- Children residing in the most deprived 'deprivation fifth' were more likely to be living with overweight or obesity compared with the least deprived fifth, next least deprived fifth, middle deprived fifth and next most deprived fifth.
- Boys were statistically significantly more likely to be underweight compared to girls with the proportion of boys living with underweight at 1.3% compared to 0.6% for girls.
- This year's results showed a statistically significant difference between rural and urban areas. The proportion of children in rural areas who were living with overweight or obesity was 26.8% compared to 25.0% in urban areas.

Introduction

This report summarises the key findings of the Child Measurement Programme (CMP) for Wales for the school year 2023/24. We are pleased to report, for Wales overall, a return to pre-pandemic participation with 93.4% of children being weighed and measured this year. This is also the first year that the interactive dashboard for CMP data is publicly available, which can be found here. The dashboard currently includes data up to 2023. The 2023/24 data will be added in due course and the dashboard options will also be expanded.

We have retained the same layout as last year. Part 1 summarises the all Wales level data and provide comparisons between the Local Health Boards (LHBs) and Local Authorities (LAs). This section will be useful for those interested in the general situation across Wales, such as Welsh Government and National organisations.

Part 2 provides bespoke short reports for each LHB and the associated LAs. These sections will be of more interest to local organisations, such as the relevant LHBs and LAs who may wish to use the information to monitor population needs and support service planning. These sections may also be of interest to members of the public who wish to know the situation in their communities.

In addition to this summary report, the full results, including data tables and more charts, are available on the Child Measurement Programme website at Child Measurement Programme for Wales.

Methods

This report relates to measurements taken of children resident in Wales who attended reception class and turned five during the academic year 2023/24. Following ongoing feedback and improvement, the report continues to include the deprivation breakdown in relation to obesity by LHB, and the data breakdown at primary care cluster (PCC) level geography. Detailed information explaining how measurements were taken and how data were collected and analysed are available on the website, see the downloadable document 'The Child Measurement Programme for Wales: history, legislative framework and technical aspects'. However, the following paragraphs provide a summary of the methods.

Cohort Inclusions and Exclusions

Records are included in the 2023/24 CMP for Wales if the child is resident in Wales, attends a school in Wales, has a recorded sex and was born in the period September 2018 to August 2019. Children are excluded if their measurement occurred outside the 2023/24 academic year, their height or weight recorded is an implausible measurement or if their consent is withdrawn. Children are also excluded if they are unable to stand unaided.

Variables

Variables are the characteristics of the children that we are able to explore when analysing data, for example 'sex'. For the purpose of this report, sex refers to a binary variable categorised as 'boys' or 'girls.'

Rurality was also categorised as a binary variable: 'rural' or 'urban'. Rural or urban classifications are informed by the Office for National Statistics (ONS) datasets. Areas are assigned as urban or rural in line with the ONS definition, which is based on whether or not the area's population centre is within a built-up area of greater than 10,000 people.

Deprivation is approximated according to postcode area of residence. The postcode maps to the Welsh Index of Multiple Deprivation (WIMD, 2019), a relative measure that ranks 1,909 small geographical areas in Wales from least deprived to most deprived. The index is derived from eight domains: income, employment; health; education; access to services; community safety; physical environment; housing (see the Welsh Government's StatsWales website for further details). For the purpose of CMP results reporting, the 1,909 small areas are grouped into quintiles. Health board and local authority figures use local fifths of deprivation. Local fifths differ from the national fifths in that the five equal bands of deprivation are recalculated for the small areas within each health board and local authority boundary respectively. Rate ratios are calculated by dividing the percentage of children with obesity in the most deprived area, by the percentage in the least deprived area. The rate ratios provide a measure of relative inequality within a health board or at all Wales level. A larger rate ratio implies a larger inequality gap.

Ethnicity is recorded according to categories defined by the ONS, that are: White; Asian or Asian British; Black, Black British, Caribbean or African; Mixed or multiple ethnic groups; Other ethnic group; Not known. Given the low numbers of children in some of the ethnicity group categories these data were reported at an all Wales level only.

Data Representativeness

Representativeness refers to how well matched the collected data are to the entire cohort of eligible children. Usually the participation for the Child Measurement Programme is high, and representativeness is less of a concern. However, as we recovered from the pandemic the participation had been lower in some areas as noted in 2021/22. For 2023/24, the participation had returned to pre-pandemic levels, with more than 95% of LA regions having greater than 90% participation and more than 90% of all PCCs having a participation rate of at least 90%.

Primary Care Cluster Level Data

A Primary Care Cluster (PCC) is a collection of primary care providers. The area covered by a Primary Care Cluster is built from small geographical levels called Lower Super Output Areas (LSOA). These LSOAs have been mapped to the cluster where the highest number of residents are registered to a GP practice within the cluster. The Cluster mapping used was reported in October 2022. Clusters are subject to change and may not be directly comparable with previous CMP publications. However, the cluster mapping used in 2023/24 was the same as 2022/23, therefore, it is possible to compare across these years.

Analyses

Prevalence rates were calculated using the age and sex-specific body mass index (BMI) centiles calculated using the British 1990 growth reference (UK90) (from a method proposed by Cole et al 1995, cited in Dinsdale et al, 2011). The use of BMI is consistent with comparable child measurement programmes in the UK. The 95% confidence intervals (95% CIs) for the prevalence rates were calculated using a method proposed by Wilson et al, 1927 (cited in Altman, 2000). BMI was calculated using a method proposed by Keys et al (1972). The following epidemiological weight category thresholds have been assigned for surveillance purposes and include children living:

- With underweight: less than but not including 2nd centile.
- With healthy weight: 2nd centile up to but not including 85th centile.
- With overweight: 85th centile up to and not including 95th centile.
- With obesity: 95th centile and above.

Results are given in proportion (%) of cohort followed by the corresponding 95% confidence interval (95% CI) in brackets. The cohort is the total number of measured children resident within the geographical region for which the specific data were reported. For example, LHB reporting includes the results of all children resident within that LHB. Statistically significant differences were defined when the 95% CIs of the compared proportions did not overlap. However, overlapping 95% CIs cannot be assumed to mean that there is no statistically significant difference. This would require further statistical analyses to compare proportions with overlapping 95% CIs. These analyses were beyond the scope of this report.

National level comparisons, where applicable, were made with the most recent previous report (2022/23) data. Where relevant, pre-pandemic comparisons have been made. Comparisons were also made at all Wales level to the English and Scottish reports.

Limitations

Limitations for the CMP data in general are reported in the 'The Child Measurement Programme for Wales: history, legislative framework and technical aspects' document and the 'data quality statement'. These are available on the website alongside the report. Limitations to this year's report are listed as follows:

- As there were insufficient data for a 2019/20 official statistics report and limited data reported for the 2020/21 and 2021/22 years, there remains a data gap within the past five years. As such, analyses requiring 5 years of data such as reporting at smaller geographical areas (MSOA) are not available.

- The number of children in some quintile categories are low. Therefore, the patterns shown should be interpreted with caution.

- Individuals may experience different levels of deprivation compared to the area they live in. Therefore, as WIMD is an area-based measure of deprivation, there is limited ability to compare patterns to individual circumstances.

- For each LHB region, we show the gap in children's measurements between the least and most deprived areas, and how this has changed over time. These changes can be looked at within each LHB, but they should not be compared between different LHBs. This is because deprivation levels are based on specific characteristics of the population living in each region.

- Ethnicity data reporting was restricted to all Wales level due to the small numbers in some categories and the presence of missing data (for the whole of Wales, 37.8% of this year's cohort was categorised as unknown). These data must be interpreted with caution as participation from ethnic groups will not be uniform across Wales due to variation in population demographics. Local teams should consider these results in the context of local knowledge of their population demographics.

- BMI cut-off thresholds have not been adjusted for different ethnic groups.

- Primary Care Clusters data are a 'best-fit' built from LSOAs mapped to the cluster where the highest number of residents are registered to a GP practice within the cluster.

- At PCC level it should be noted that these results are based upon one year of data collection only and numbers in some sub-categories are low.

- The PCC thematic maps provided for each LHB in Part 2 of the report use different proportion ranges for the colour categories. Therefore, these maps should not be compared between LHB regions.

Engagement and Results Reporting

Parents/guardians receive an information leaflet explaining the measurement programme. The leaflets are bilingual Welsh/English and are either delivered as hard copies or digital communication depending upon location. The requests for hard copies are reducing year on year as regions convert to digital communications.

The CMP team meet with healthcare professionals in Public Health and School Nursing regularly throughout the year allowing communication of CMP results and receiving of stakeholder feedback respectively. The team also engage with Welsh Government representatives via several forums, including monthly School Nurses Leads meetings and bespoke ad hoc meetings or communication exchanges. The CMP data are also presented at the Healthy Weight: Healthy Wales strategy meetings.

The report and outputs are made available to the public on the Public Health Wales website as a pre-announced official statistics release. The summary, or key findings, of this report are published at the start of the report and are not repeated elsewhere within the report. The key findings are also published as Hyper Text Markup Language (HTML) on the website to support accessibility. The key findings section can also be considered as the executive summary.

The decision to send results letters to individual children's parents and guardians is determined by clinical teams within the LHBs. This report deals with population level data for the purposes of surveillance only.

This report does not provide recommendations. It is anticipated that the data reported here may be triangulated with other sources of data and information by Government, relevant organisations and individuals to help inform weight management policy and programmes.

Part 1: General Outputs

Wales Level

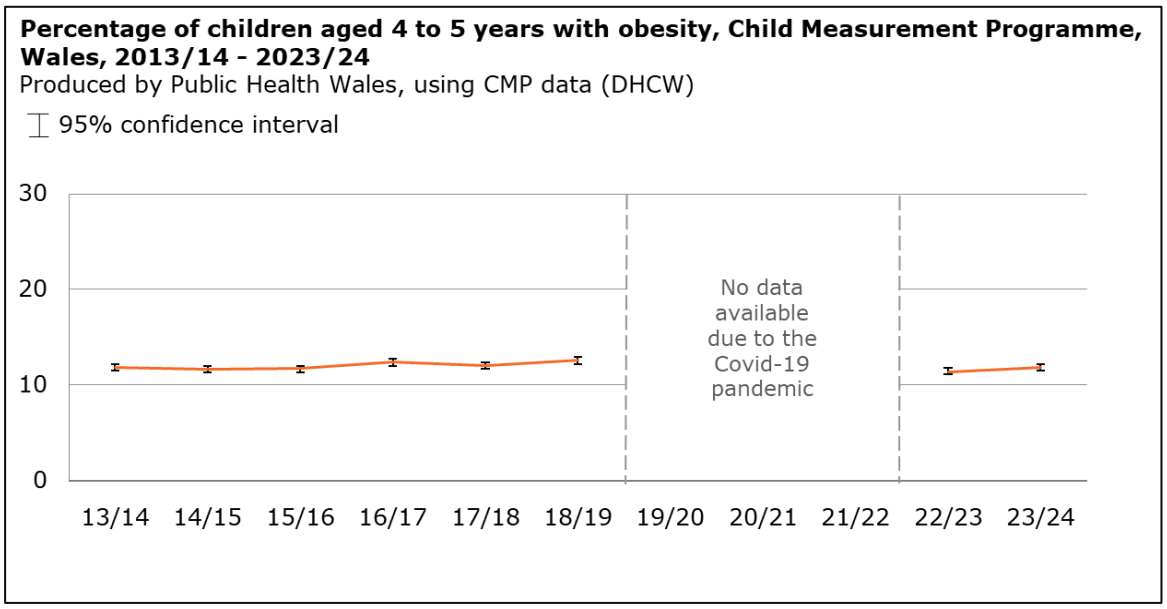
During the 2023/24 academic year, 29,049 children were measured resulting in a participation proportion of 93.4%, which is similar to pre-pandemic levels of engagement, where participation had remained above 93% between 2014/15 to 2018/19. Participation varied slightly between boys and girls with 92.6% and 94.2% participation noted respectively. Eighty-one children were actively opted out of the programme by their parent/guardian.

For Wales as a whole, the proportion of children with underweight was 1.0% (95% CI 0.8-1.1) in 2023/24. This was slightly higher than in 2022/23 (0.9% (95% CI 0.8-1.0)) and 2018/19 (0.7% (95% CI 0.6-0.8)). However, trends over a long period of time demonstrate small year on year fluctuations in keeping with the relatively low numbers of children identified within this category.

The proportion of children with a healthy weight was 73.5% (95% CI 73.0-74.0). This is lower compared to the previous year, where the proportion of children with a healthy weight was 74.3% (95% CI 73.8-74.8). This year's data is significantly higher than pre-pandemic levels when a proportion of 72.4% (95% CI 71.9-72.9) was reported in 2018/19.

The proportion with overweight only or with obesity only was 13.7% (95% CI 13.3-14.1) and 11.8% (95% CI 11.5-12.2) respectively. The proportion was similar to last year. Last year's data of children living with overweight and with obesity were 13.4% (95% CI 13.0-13.8) and 11.4% (95% CI 11.1-11.8) respectively. This year's results were not as high as the proportions observed pre-pandemic, when the proportion with overweight and with obesity was 14.4% (95% CI 14.0-14.8) and 12.6% (95% CI 12.2-12.9) respectively. The trend in the proportion of children with obesity over time is shown in Figure 1. Caution should be applied when interpreting these results due to the missing data during the pandemic and now only two data points post pandemic. Overall, we cannot be confident there are any clear trends.

Figure 1:



Comparison with England and Scotland

Overall, the 2023/24 data for England National Child Measurement Programme reported a lower proportion of children with obesity at 9.6% compared with Wales (11.8%). Comparisons with Scotland are harder to interpret as children generally enter school when several months older than in England and Wales. That being said, the proportion of Primary 1 children in Scotland with obesity was lower at 10.5%, compared with Wales (11.8%). For Wales and England, the proportion with obesity was slightly higher than 2022/23. For Scotland, it was the same as in 2022/23. At the time of writing the Northern Ireland Statistical Report on Children's Health for 2023/24 was not yet available.

Sex

The proportion of boys with overweight was lower compared to girls with overweight at 13.3% (95% CI 12.8-13.9) and 14.0% (95% CI 13.5-14.6) respectively. A similar proportion of boys were reported as living with obesity (12.0%, 95% CI 11.5-12.5) compared with girls (11.7%, 95% CI 11.1-12.2).

There were differences between boys and girls for other weight categories. As also observed last year and pre-pandemic, a lower proportion of girls were measured as having underweight (0.6%, 95% CI 0.5-0.7) compared with boys (1.3%, 95% CI 1.1-1.5). This was a statistically significant difference. A similar proportion of boys were measured as having a healthy weight (73.4%, 95% CI 72.6-74.1) compared with girls (73.7%, 95% CI 73.0-74.4). There was a decrease in the proportion of girls living with a healthy weight compared to last year, where last year the proportion of girls living with a healthy weight was 75.0% (95% CI 74.3-75.7). As the confidence intervals overlap, further statistical analysis would be required to understand if this is a statistically significant change. These analyses are beyond the scope of this report.

Deprivation

Table 1 highlights the differences in participation rates by deprivation quintile and sex and the percentage change in participation compared to the previous year's data. The participation percentage was lower in the two most deprived quintiles.

The smallest increases in participation percentage were seen in the two most deprived quintiles. A greater proportion of girls participated in the programme compared to boys. Participation rates were 2.1% lower for boys compared to girls in the most deprived quintile, compared to only a 0.9% difference in the least deprived quintile.

Table 1: Participation rates for 2023/2024 including breakdown by Boys/Girls and percentage change compared to last year

Deprivation fifth	*Participation (Children)*	*Participation (Boys)*	*Participation (Girls)*	*Participation Change compared to 2022/23 (Children)*
Least deprived fifth	94.2%	93.8%	94.7%	+1.9%
Next least deprived	94.5%	94.2%	94.8%	+2.4%
Middle deprived	94.3%	93.5%	95.1%	+2.5%
Next most deprived	92.5%	91.2%	93.8%	+1.5%
Most deprived fifth	91.9%	90.9%	93.0%	+1.3%

Clinical weight data in relation to deprivation are summarised in Table 2. No trend was observed between deprivation and the category of 'underweight'. However, increasing deprivation was associated with a reduction in the proportion of children with healthy weight and a reciprocal increase in proportions of children living with obesity. Last year, an increase in proportion of children with overweight was observed for each increase in deprivation fifth. This year, a stepwise dose response was not observed for this category, although, there was a statistically significant increase in the proportion of children living with overweight between the most and least deprived fifths.

Children in the most deprived fifth were statistically significantly less likely to have a healthy weight compared with those in the middle to least deprived fifths. Children in the least deprived fifth were statistically significantly less likely to be living with obesity compared with all other deprivation fifths.

Table 2: Wales Level Deprivation Data Summary, Children aged 4-5 years, Child Measurement Programme 2023/24

Deprivation fifth	*With Underweight proportion, 95% CI*	*With Healthy Weight proportion, 95% CI*	*With Overweight proportion, 95% CI*	*With Obesity proportion, 95% CI*
Least deprived fifth	1.1% (0.8 – 1.4)	78.6% (77.5-79.7)	11.9% (11.0-12.8)	8.4% (7.7-9.2)
Next least deprived	0.8% (0.6 – 1.1)	75.2% (74.0-76.3)	13.6% (12.7-14.5)	10.4% (9.6-11.3)
Middle deprived	0.9% (0.6 – 1.1)	73.2% (72.0-74.3)	14.5% (13.6-15.5)	11.4% (10.6-12.3)
Next most deprived	1.0% (0.8 – 1.3)	71.8% (70.6-72.9)	14.1% (13.2-15.0)	13.1% (12.3-14.0)
Most deprived fifth	1.0% (0.8 – 1.3)	70.4% (69.3-71.4)	14.0% (13.3-14.9)	14.6% (13.8-15.4)

Weight data in relation to deprivation and sex are summarised in Table 3. When considering deprivation according to sex, girls in the least deprived fifth were statistically significantly more likely to have a healthy weight compared to all other deprivation quintiles. This trend is less pronounced for boys, where the least deprived fifth shows a significantly different proportion compared to the middle to most deprived areas. Both boys and girls showed a decreasing trend in the proportion living with a healthy weight as deprivation increased.

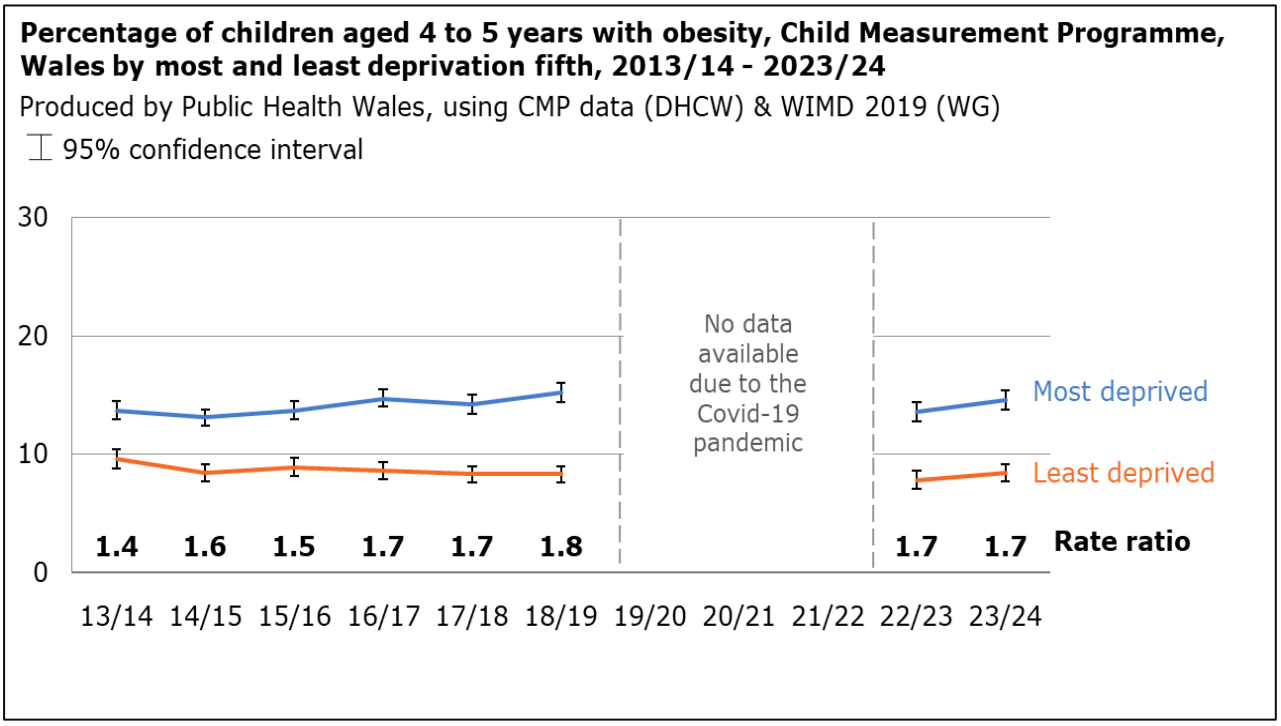
Both boys and girls showed an increasing trend in the proportion living with obesity as deprivation increased. For boys, the proportion of children with obesity increased from 8.9% (95% CI 7.9 – 10.0) to 14.2% (95% CI 13.1 – 15.4). For girls, the proportion of children with obesity increased from 8.0% (95% CI 7.0 – 9.1) to 15.0% (95% CI 13.8 – 16.2). Deprivation related trends were less clear for both boys and girls in the 'with overweight' category.

Table 3: Wales Level Weight Data by Sex and Deprivation, Children aged 4-5 years, Child Measurement Programme 2023/24

Deprivation fifth	*With Healthy Weight proportion, 95% CI*		*With Overweight proportion, 95% CI*		*With Obesity proportion, 95% CI*	
	Boys	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*
Least deprived fifth	77.9% (76.3 – 79.4)	79.4% (77.8 – 81.0)	11.8% (10.7 –13.1)	11.9% (10.7 – 13.2)	8.9% (7.9 – 10.0)	8.0% (7.0 – 9.1)
Next least deprived	75.6% (74.0 – 77.2)	74.7% (73.0 – 76.4)	12.7% (11.5 – 14.0)	14.4% (13.1 – 15.8)	10.6% (9.4 – 11.8)	10.3% (9.2 – 11.5)
Middle deprived	73.1% (71.4 – 74.7)	73.2% (71.6 – 74.8)	13.6% (12.4 – 14.9)	15.5% (14.2 – 16.9)	12.1% (11.0 – 13.4)	10.7% (9.6 – 11.9)
Next most deprived	71.3% (69.6 – 72.9)	72.3% (70.6 – 73.9)	14.3% (13.1 – 15.6)	14.0% (12.7 – 15.3)	13.3% (12.1 – 14.5)	13.0% (11.8 – 14.2)
Most deprived fifth	70.3% (68.8 – 71.7)	70.4% (68.9 – 71.9	13.9% (12.8 – 15.1)	14.2% (13.1 – 15.4)	14.2% (13.1 – 15.4)	15.0% (13.8 – 16.2)

The time trend for deprivation gap between the least and most deprived fifths is given in Figure 2. The deprivation gap, as reflected by the rate ratio, increased from 2013/14 to just before the pandemic in 2018/19. The gap observed this year was the same as last year and similar to 2018/19. Caution should be applied when reviewing the trend due to the three years when data were not available.

Figure 2:



Ethnicity

The ethnicity data are summarised at all Wales level in Table 4. Over a third were categorised as 'Not known.' Due to the high proportion of missing data, these data must be interpreted with caution. Given the low numbers of children in categories such as 'with underweight', some categories were combined. Over half the cohort were categorised as 'White'. Only 6.1% of the total cohort were categorised within the other ethnicity categories.

There was a statistically significantly higher proportion of children categorised as 'Asian or Asian British' with 'a healthy weight or underweight' compared with those categorised as 'White'. For 'Asian or Asian British,' 'Black, Black British, Caribbean or African,' or 'Other ethnic group' there were slight increases in the proportion of children living with 'a healthy weight or underweight' compared to the previous year. The proportion living with 'a healthy weight or underweight' of 'Asian or Asian British,' 'Black, Black British, Caribbean or African' and 'other ethnic group' for the year 2022/23 was 80.9% (95% CI 77.7 – 83.7), 70.7% (CI 64.6 – 76.0) and 73.8% (67.6 – 79.3) respectively. These results should be interpreted with caution given the low numbers of children in some groups.

For 2022/23, children of 'Black, Black British, Caribbean or African' ethnicity had a higher proportion 'living with obesity' compared to children of 'white' ethnicity (17.4% 95% CI 13.1 – 22.6 compared to 11.5% 95% CI 11.1 – 12.0). However, the difference observed between these groups in the latest 2023/24 measurements was smaller (12.7% versus 11.9% respectively, see Table 4). This large variation between years may be due to the small numbers in some ethnicity categories. For example, there were only 35 children 'with obesity' in the 'Black, Black British, Caribbean or African' category measured in 2023/24. This, once again, highlights the need to interpret these data with caution.

There was a statistically significant difference between children of 'Asian or Asian British' ethnicity living with 'overweight or obesity' compared to children of 'white' ethnicity (18.3% 95% CI 15.5 – 21.5 compared to 26.0% 95% CI 25.4-26.7). These findings were consistent with those reported in 2022/23.

Table 4: Wales Level Ethnicity Data Summary, Children aged 4-5 years, Child Measurement Programme 2023/24

Ethnicity	*Proportion ofcohort*	*With Healthy Weight or Underweight proportion, 95% CI*		*With Overweight or Obesity proportion, 95% CI*		*With Obesity proportion, 95% CI*	
White	56.0%	74.0%	(73.3-74.6)	26.0%	(25.4-26.7)	11.9%	(11.4-12.4)
Asian or Asian British	2.2%	81.7%	(78.5-84.5)	18.3%	(15.5-21.5)	9.7%	(7.6-12.2)
Black, Black British, Caribbean or African	0.9%	75.3%	(69.8-80.0)	24.7%	(20.0-30.2)	12.7%	(9.3-17.2)
Mixed or multiple ethnic groups	2.3%	76.6%	(73.3-79.7)	23.4%	(20.3-26.7)	12.7%	(10.4-15.4)
Other ethnic group	0.7%	77.8%	(71.6-82.9)	22.2%	(17.1-28.4)	11.6%	(7.9-16.7)
Not known	37.8%	74.6%	(73.8-75.5)	25.4%	(24.5-26.2)	11.9%	(11.3-12.5)

Rurality

A statistically significantly higher percentage of children in rural areas had overweight or obesity compared with urban areas, see Table 5. The proportion of children in rural areas who are living with a 'healthy weight or underweight' was 73.2% (95% CI 72.2 – 74.1) compared to children in urban areas 75.0% (95% CI 74.4 – 75.6). This statistically significant difference was not observed in last year's report.

When considering children living with obesity, there was minimal difference between urban and rural areas, see Table 5.

Table 5: Wales Level Rurality Data Summary, Children Aged 4-5 years old, Child Measurement Programme 2023/24

Ethnicity	*Proportion of children in measured cohort*	*With Healthy Weight or Underweight proportion, 95% CI*		*With Overweight or Obesity proportion, 95% CI*		*With Obesity proportion, 95% CI*	
Rural	28%	73.2%	(72.2-74.1)	26.8%	(25.9-27.8)	11.8%	(11.1-12.5)
Urban	72%	75.0%	(74.4-75.6)	25.0%	(24.4-25.6)	11.9%	(11.4-12.3)

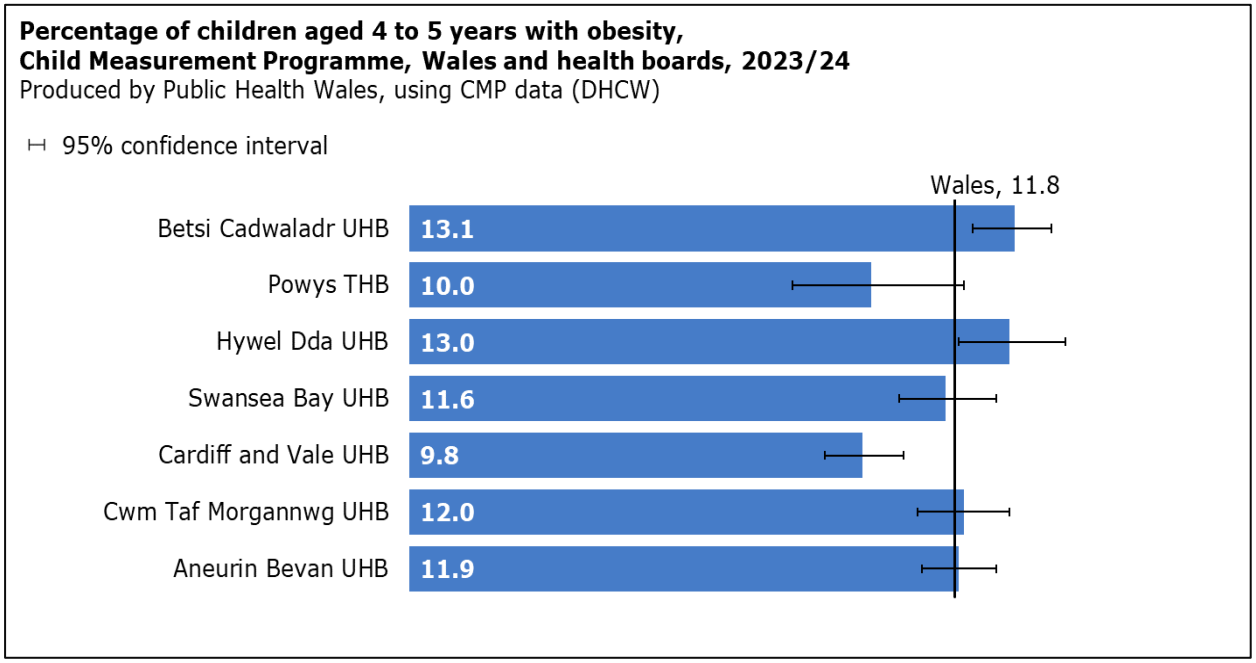
Local Health Board Comparisons

The breakdown for the proportion of children living with obesity by LHB is given in Figure 3. The proportion varies from 9.8% (95% CI 9.0-10.7) in Cardiff and Vale to 13.1% (95% CI 12.2-13.9) in Betsi Cadwaladr. This difference was statistically significant.

The proportion of children with obesity in Cardiff and Vale was statistically significantly lower than the Wales average, which was consistent with 2022/23.

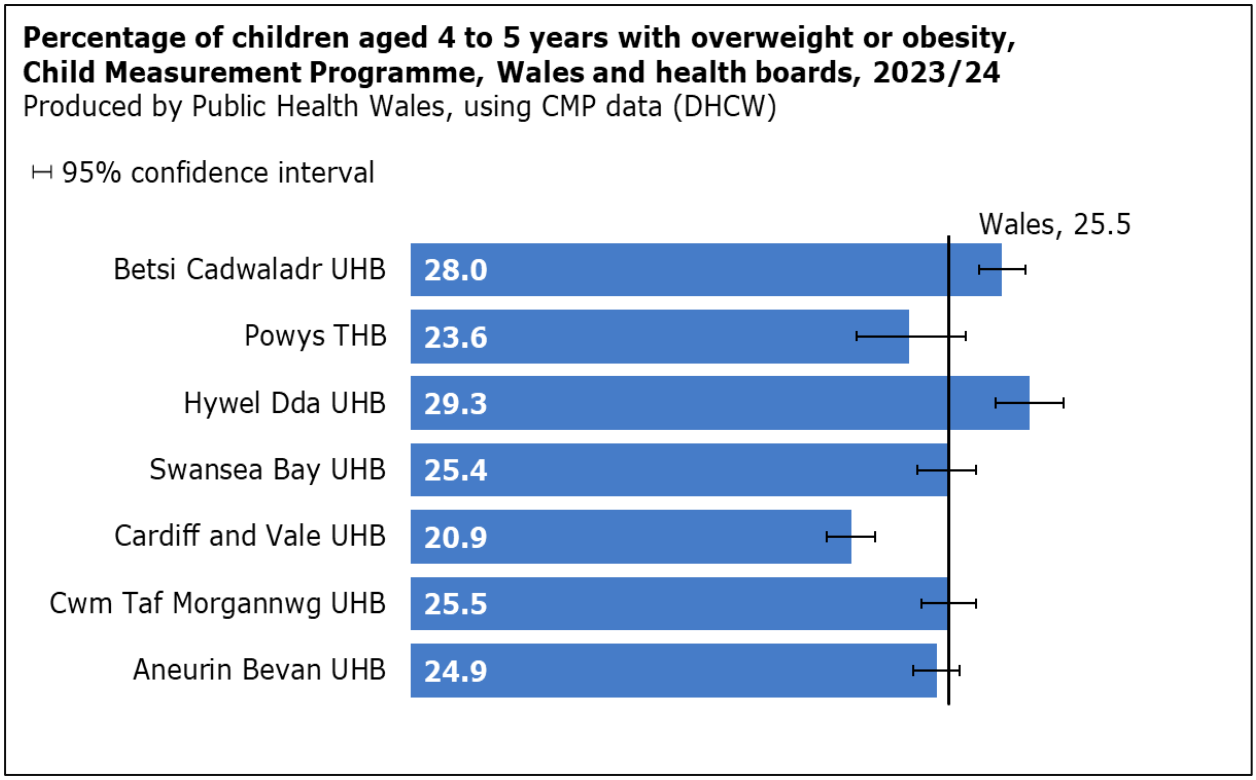
Compared to 2022/23, the proportion with obesity in Cwm Taf Morgannwg UHB was statistically significantly higher than the Wales average last year. However, this year, Cwm Taf Morgannwg's proportion of children living with obesity was similar to the Wales average. This observed change resulted from a combination of a slight increase in the Wales average (11.4% to 11.8%) and a decrease in Cwm Taf Morgannwg's proportion of children living with obesity (12.9% to 12.0%).

Figure 3:



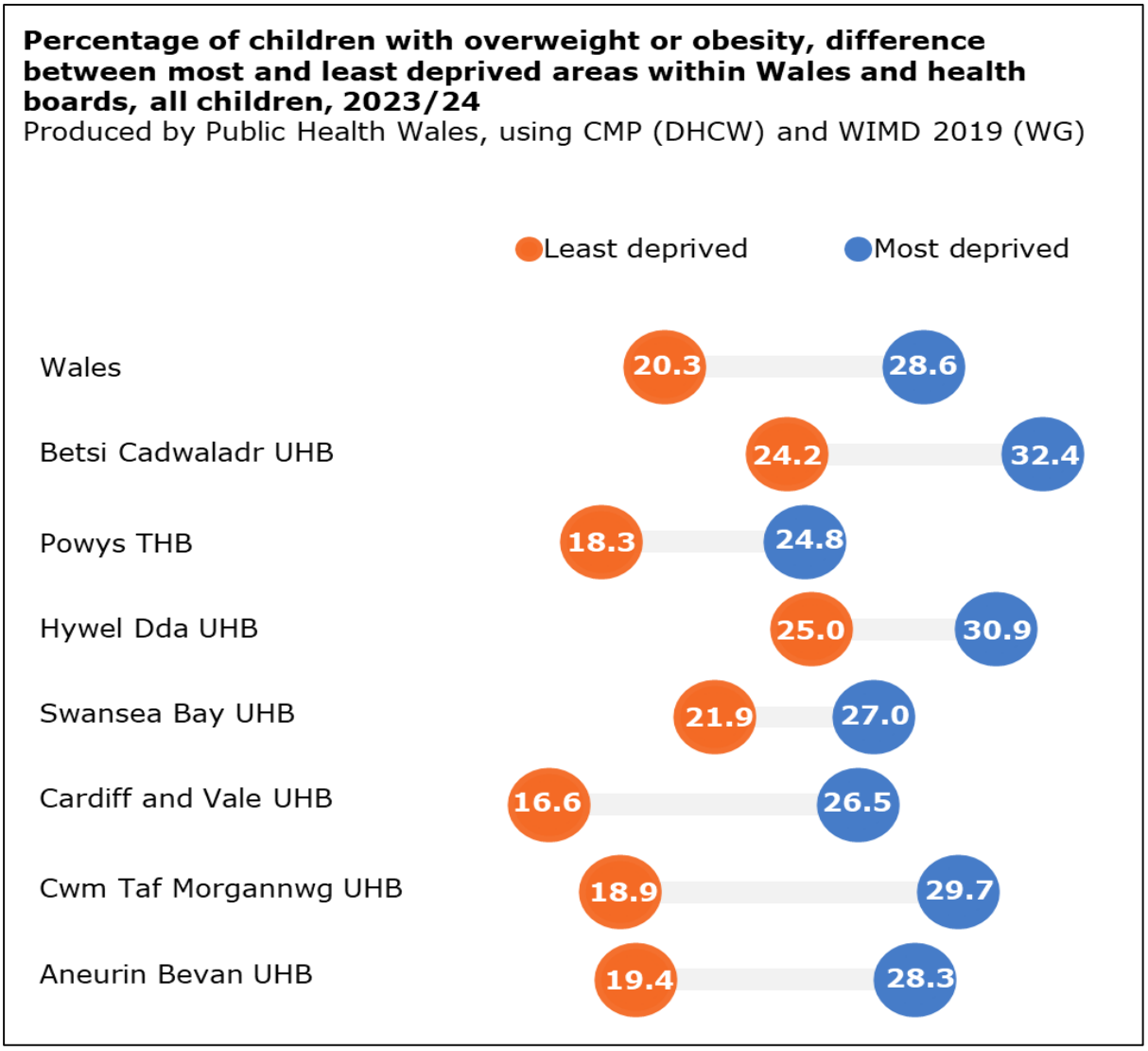
Cardiff and Vale had the lowest proportion of children with 'overweight or obesity' at 20.9% (95% CI 19.7-22.0). Hywel Dda and Betsi Cadwaladr had statistically significantly higher proportions of children living with 'overweight or obesity' compared to Cardiff and Vale and the Wales average with 29.3% (95% CI 27.7-30.9) and 28.0% (95% CI 26.9 – 29.1) respectively. See Figure 4.

Figure 4:



All Health Boards showed similar deprivation trends with higher proportions of children with overweight or obesity in the most deprived deprivation fifths compared to the least deprived fifth (see Figure 5). These differences were statistically significant in Betsi Cadwaladr, Cwm Taf Morgannwg, Cardiff and Vale and Aneurin Bevan.

Figure 5:



Local Authority Level comparisons

The breakdown for children with obesity by LA area is given graphically and by thematic map in Figures 6 and 7 respectively.

The proportions of children with obesity in Monmouthshire and Cardiff were statistically significantly lower than the Wales average (9.0% 95% CI 7.2 – 11.3 and 9.8% 95% CI 8.8 – 10.8 respectively). The proportion of children with obesity in the Vale of Glamorgan was slightly lower (9.9% 95% CI 8.3 – 11.7) than the Wales average (11.8% 95% CI 11.5 – 12.2).

The proportion of children with obesity in Carmarthenshire was statistically significantly higher than the Wales average (14.1% 95% CI 12.6 – 15.9). The proportion of children with obesity in Caerphilly was higher compared to the Wales average (13.6% 95% CI 12.1 – 15.3). However, for Caerphilly the 95% CI overlapped with the Wales average 95%CI.

Figure 6:

Percentage of children aged 4 to 5 years with obesity, Child Measurement Programme, Wales and local authorities, 2023/24
Produced by Public Health Wales, using CMP data (DHCW)

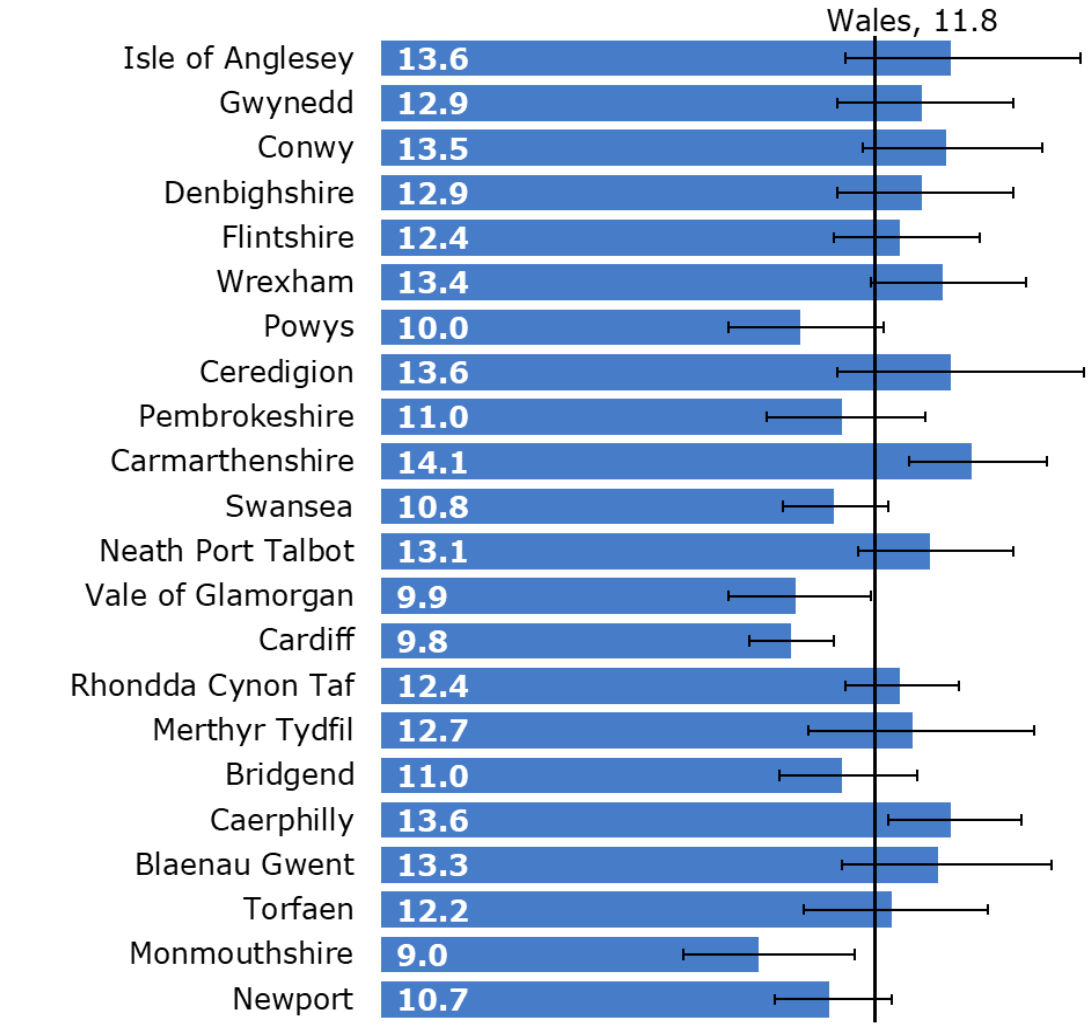
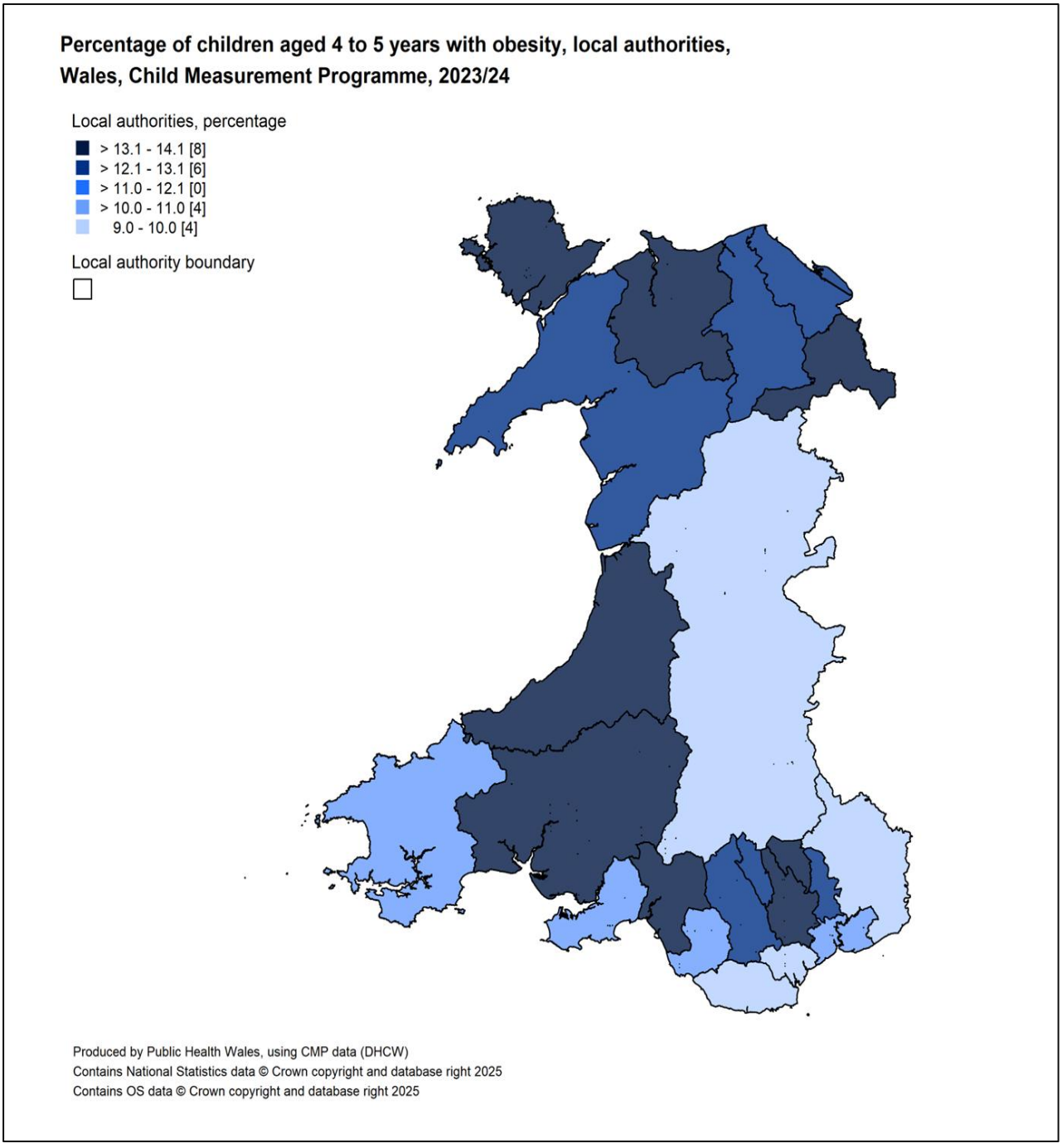


Figure 7:



The proportions of children with 'overweight or obesity' by LA are given in Figure 8 and Figure 9. Proportions varied from 20.5 (95% CI 19.2-21.9) in Cardiff to 30.9% (95% CI 27.3-34.8) in Isle of Anglesey. The proportion of children with overweight or obesity was statistically significantly higher in the Isle of Anglesey, Gwynedd, Carmarthenshire and Neath Port Talbot local authorities compared to the Wales average. The proportion of children with overweight or obesity was statistically significantly lower in the Vale of Glamorgan, Cardiff and Monmouthshire local authorities compared to the Wales average.

Figure 8:

Percentage of children aged 4 to 5 years with overweight or obesity, Child Measurement Programme, Wales and local authorities, 2023/24
Produced by Public Health Wales, using CMP data (DHCW)

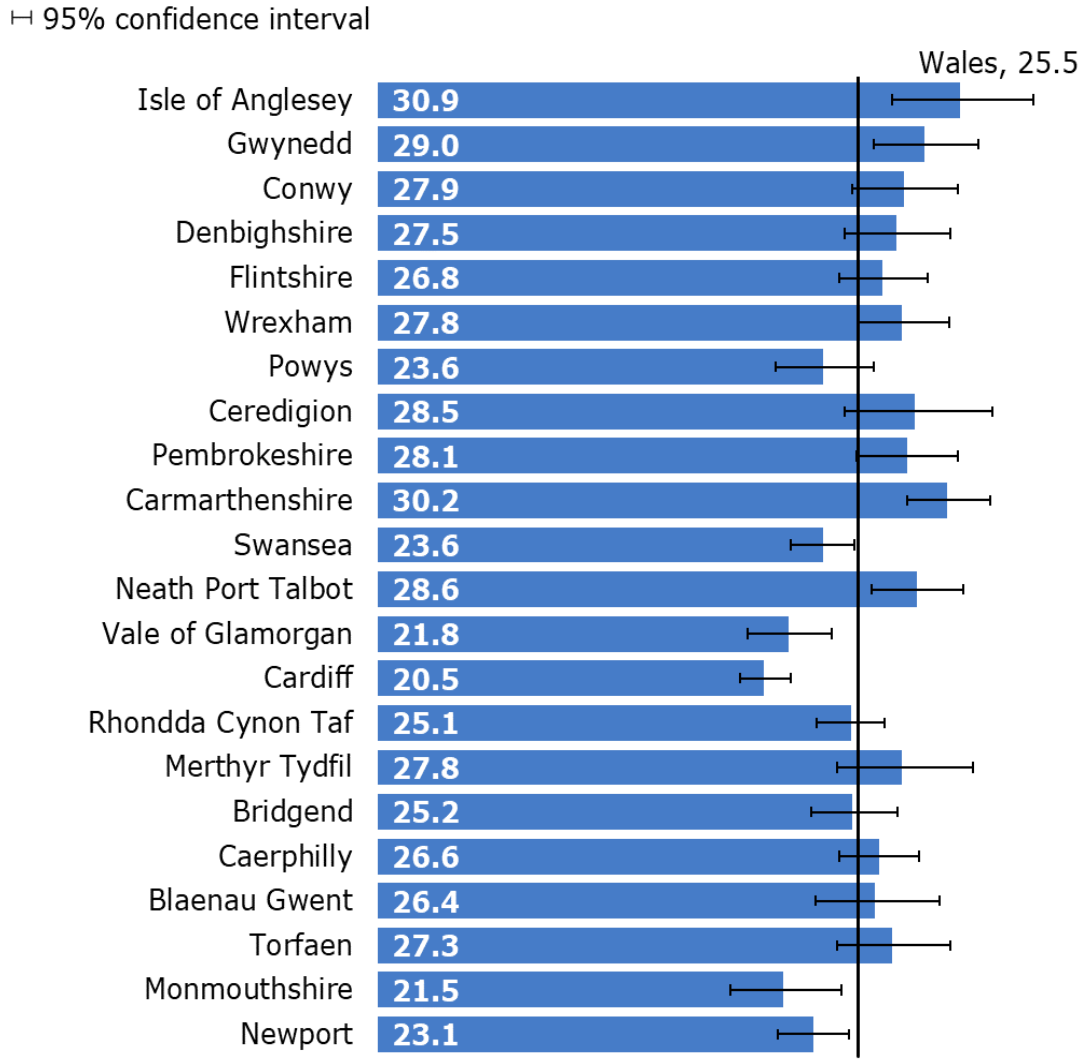
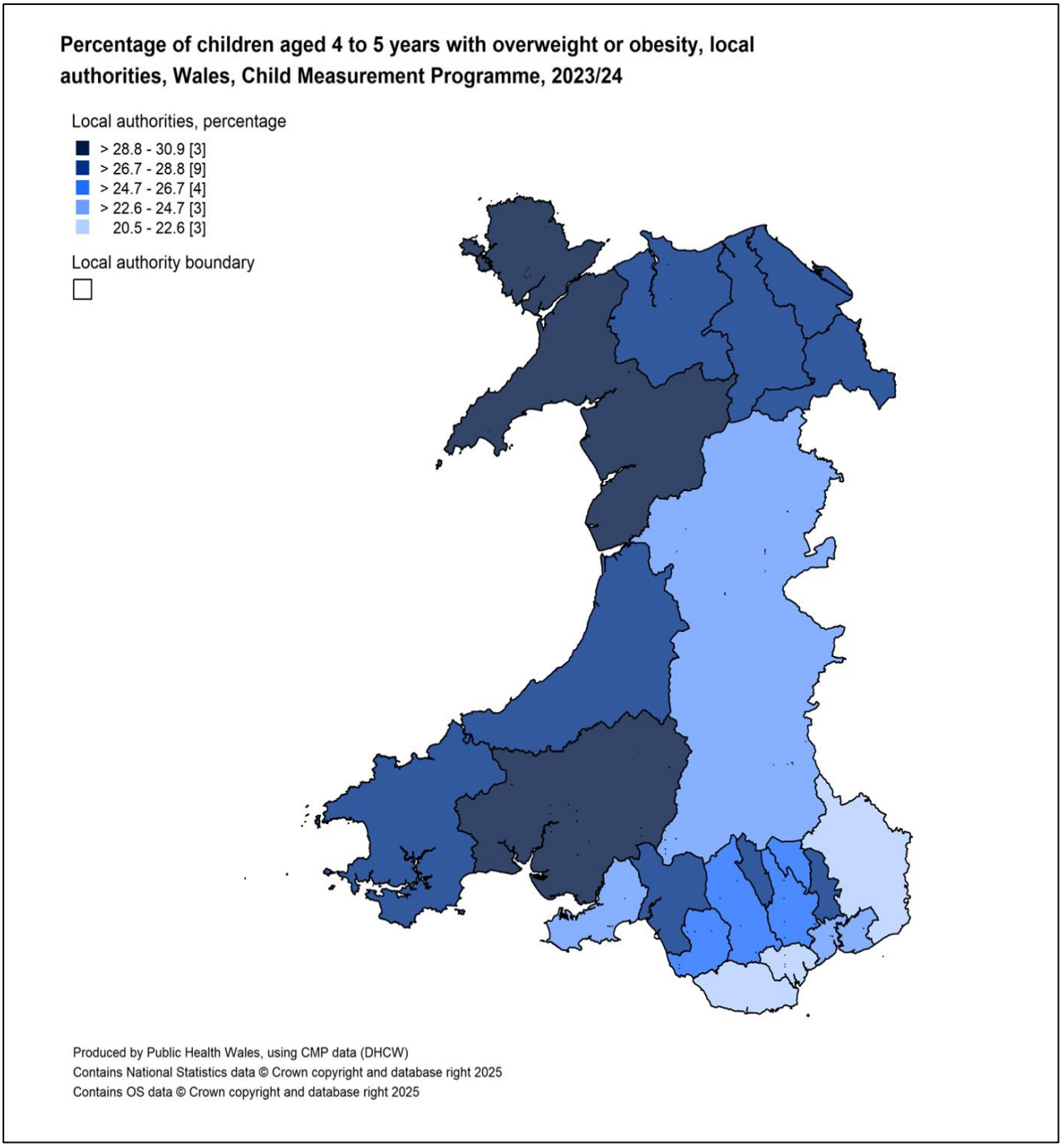


Figure 9:


Percentage of children aged 4 to 5 years with overweight or obesity, local authorities, Wales, Child Measurement Programme, 2023/24
Local authorities, percentage
> 28.8 - 30.9 [3]
> 26.7 - 28.8 [9]
> 24.7 - 26.7 [4]
> 22.6 - 24.7 [3]
20.5 - 22.6 [3]
Local authority boundary
Produced by Public Health Wales, using CMP data (DHCW)
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Part 2: Local Health Boards and Local Authorities Focused Reports

Betsi Cadwaladr University Health Board

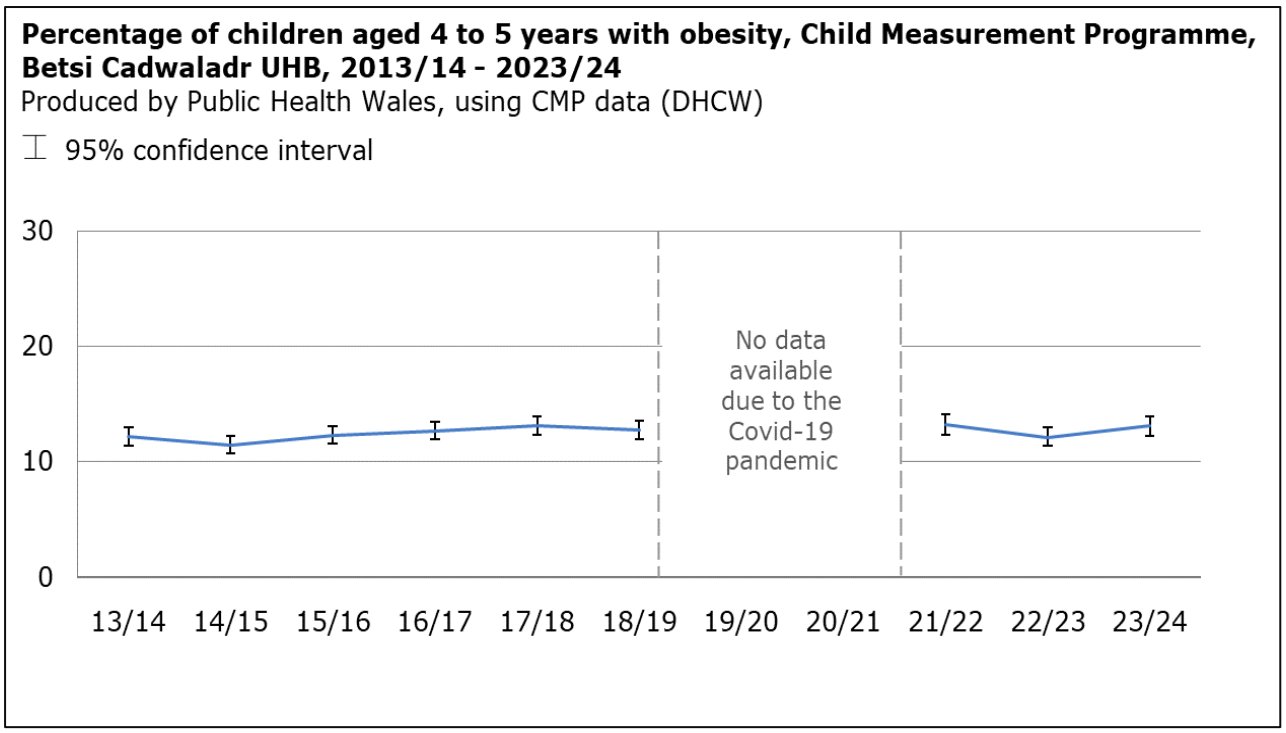
The overall participation proportion was 95.4% across Betsi Cadwaladr University Health Board (BCUHB), an increase from 91.2% last year (2022/23) and now exceeding pre-pandemic coverage of 94.8% for 2018/19. The exact number of children that opted out of the programme was too low to report. The participation proportion varied by Local Authority regions: Isle of Anglesey 95.5%, Gwynedd 94.7%; Conwy 95.6%; Denbighshire 95.9%; Flintshire 94.5%; Wrexham 96.2%.

With underweight and healthy weight
The number of children categorised as experiencing underweight was small and represented 0.7% (95% CI 0.5-0.9) of the cohort. This proportion was similar to the proportion of 0.6% (95% CI 0.4-0.8) reported for 2022/23. The proportion of those living with a healthy weight or underweight was 72.0% (95% CI 70.9 – 73.1). This was lower than the 74.1% (95% CI 73.0-75.1) reported in 2022/23.

With overweight not obesity
The proportion of children categorised as living with overweight not obesity was 15.0% (95% 14.1 – 15.9). This result was higher than last year's result (13.8% 95% CI 13.0-14.7).

With obesity
The proportion of children categorised as living with obesity was 13.1% (95% CI 12.2 – 13.9). This result is slightly higher than last year (12.1% 95% CI 11.4-13.0). Please see Figure 10 for the time trend.

Figure 10:



Sex

At LHB level, the proportion of boys and of girls categorised as 'healthy weight' was similar, with the proportion of boys living with a healthy weight at 71.4% (95% CI 69.8 – 73.0) compared to 71.1% (95% CI 69.5 – 72.7) of girls.

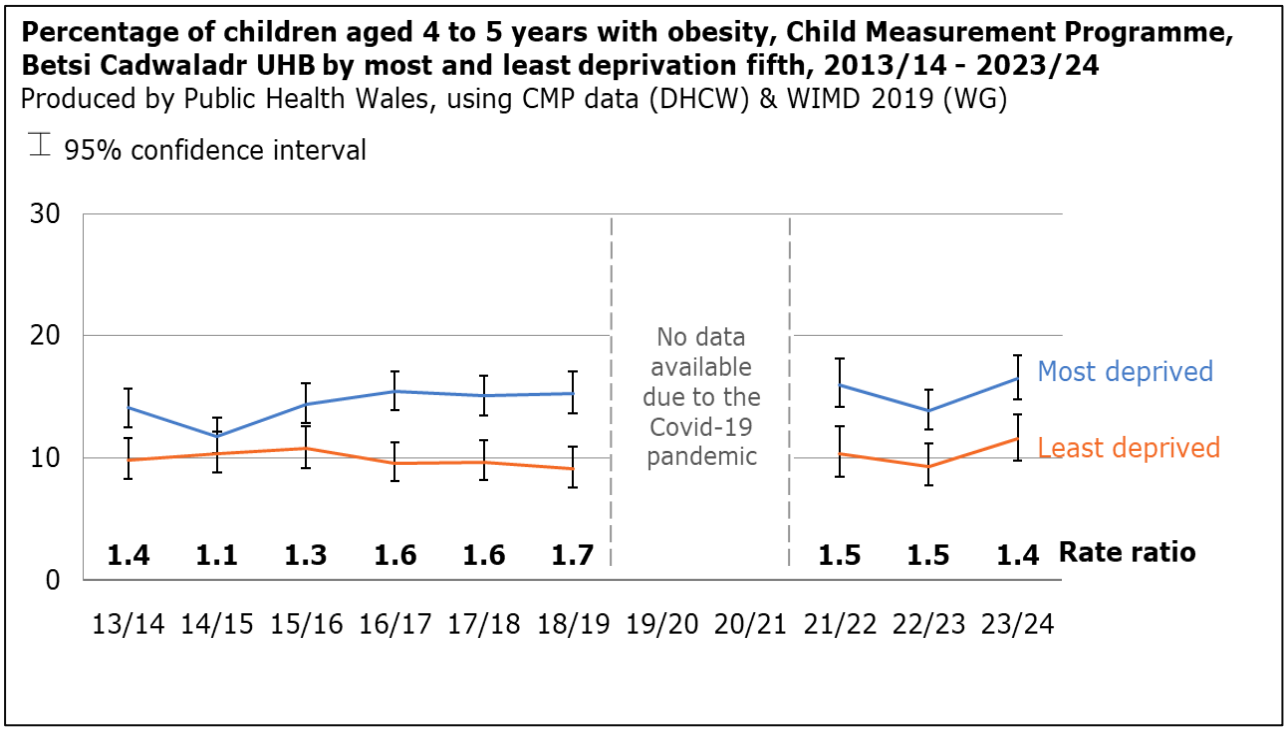
At UHB level, the proportion with obesity was similar for boys and girls at 13.1% (95% CI 12.0-14.3) versus 13.0% (95% CI 11.9-14.2) respectively. There were some differences between boys and girls in the proportion with obesity at LA level, however, a consistent pattern was not observed. For example, a higher proportion of girls were reported to have obesity in the Isle of Anglesey compared to boys (15.5% versus 12.0%), whilst the opposite pattern was observed in Conwy (Girls 11.7% versus Boys 15.2%). All 95% CIs overlap and it is likely that these observed differences in proportions with obesity at LA level are related to the lower numbers of children in each group, which could lead to greater random variation, and therefore, wider confidence intervals.

Deprivation

At UHB level there was a statistically significantly lower proportion categorised as 'living with healthy weight or underweight' in the most deprived quintile (67.6%, 95% CI 65.3-69.8) compared to the least deprived (75.8%, 95% CI 73.2-78.2). Patterns were less clear at LA level. However, the LA data should be interpreted with caution given the low numbers of cases in each category. The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 11.

The rate ratio provides a relative estimate for the gap between the least and most deprived quintiles. There is some variation in the gap over time, although it appears that this gap has narrowed in 2023/24 compared with last year and with 2018/19. This result should be interpreted with caution as there are not enough post pandemic data observations yet to confirm trends.

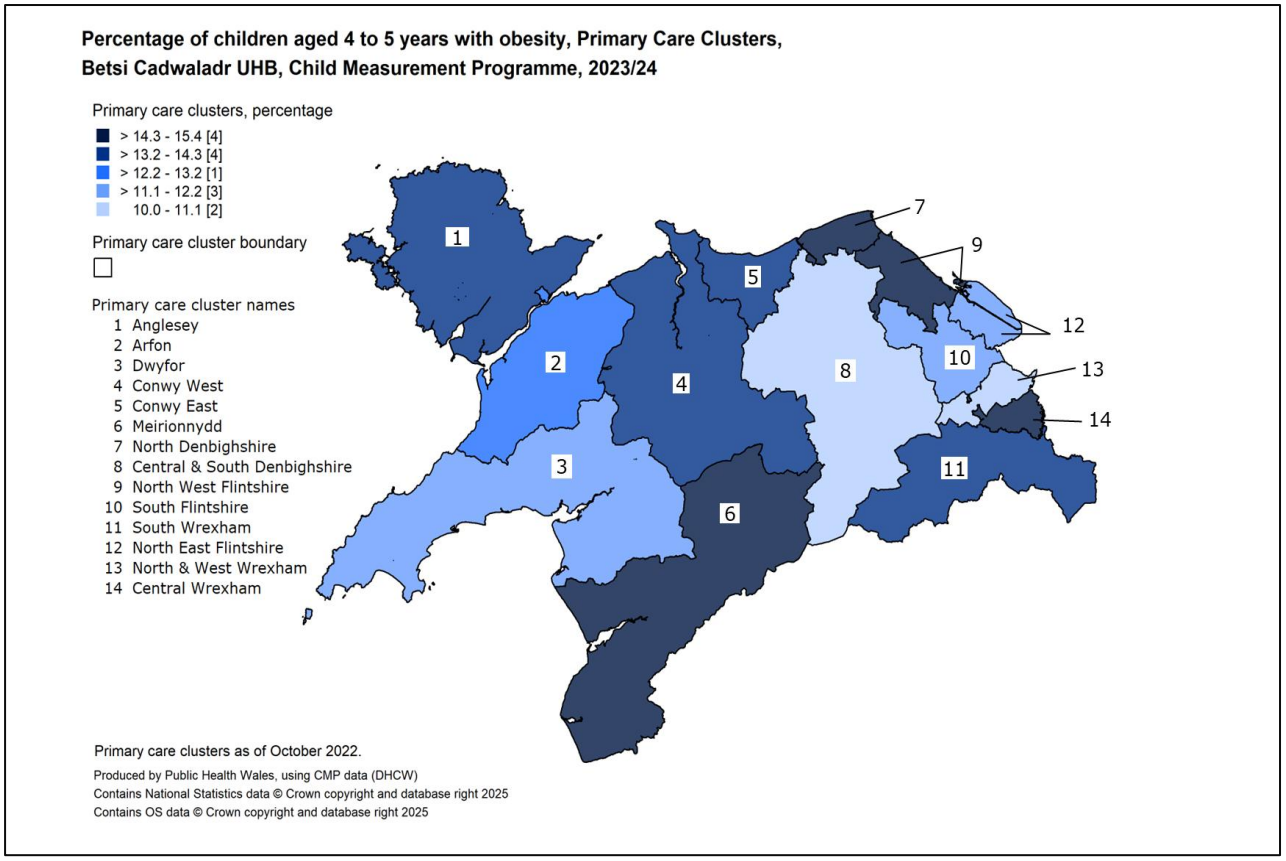
Figure 11:



Primary Care Clusters

All PCCs within the BCUHB footprint had a participation of at least 92.9%. The proportion of children with obesity varied as shown in the thematic map (Figure 12). The proportion with obesity ranged from 10.0% (95% CI 7.4-13.3) in Central & South Denbighshire to 15.4% (95% CI 12.0-19.5) in North West Flintshire.

Figure 12:


Percentage of children aged 4 to 5 years with obesity, Primary Care Clusters,
Betsi Cadwaladr UHB, Child Measurement Programme, 2023/24
Primary care clusters, percentage
> 14.3 - 15.4 [4]
> 13.2 - 14.3 [4]
> 12.2 - 13.2 [1]
> 11.1 - 12.2 [3]
10.0 - 11.1 [2]
Primary care cluster boundary
Primary care cluster names
1 Anglesey
2 Arfon
3 Dwyfor
4 Conwy West
5 Conwy East
6 Meirionnydd
7 North Denbighshire
8 Central & South Denbighshire
9 North West Flintshire
10 South Flintshire
11 South Wrexham
12 North East Flintshire
13 North & West Wrexham
14 Central Wrexham
Primary care clusters as of October 2022.
Produced by Public Health Wales, using CMP data (DHCW)
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Powys Teaching Health Board

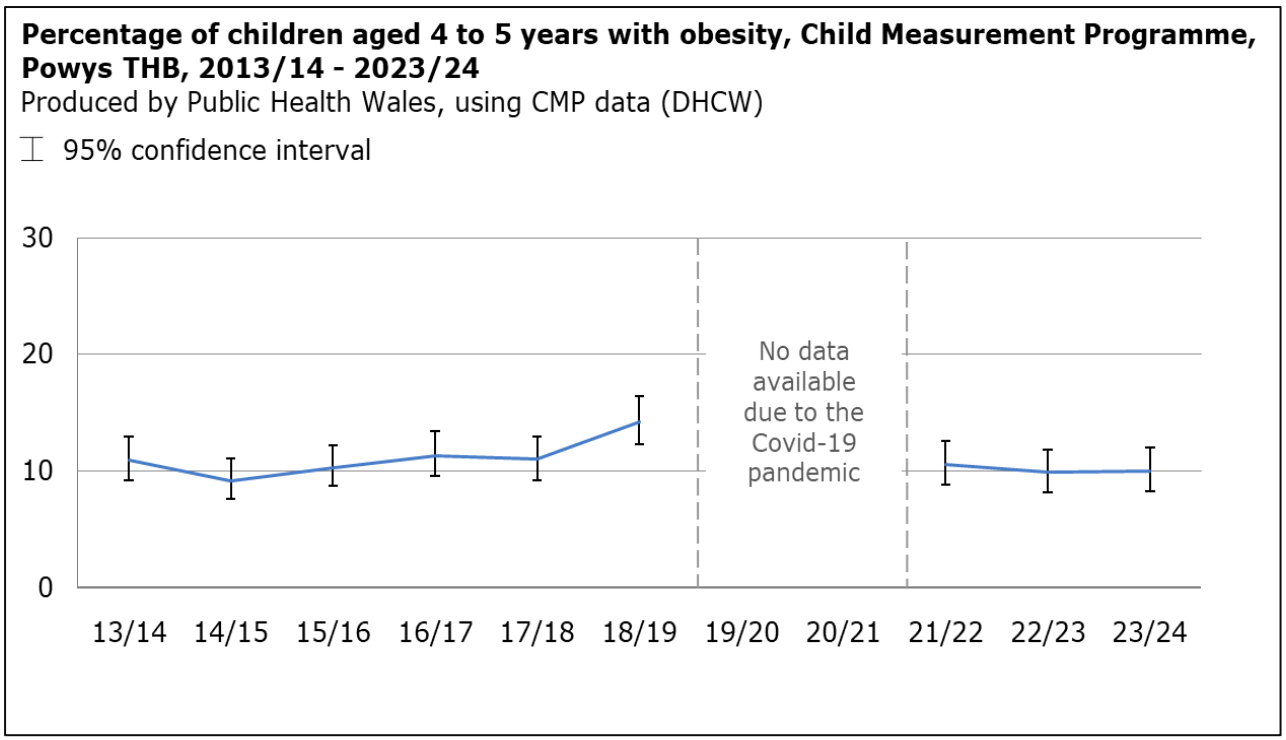
The overall participation proportion was 92.3% across Powys Teaching Health Board (PTHB), the same geographical footprint as Powys LA. The participation was higher than the 89.2% obtained in 2022/23. There were 14 children opted out of the programme.

With underweight and healthy weight
The number of children categorised as 'with underweight' was small and represented 0.9% (95% CI 0.5-1.7). This proportion was similar to the 2018/19 reported proportion of 0.7% (95% CI 0.4 to 1.4). The proportion of children categorised as 'healthy weight' was 75.5% (95% CI 72.8 – 78.1), which is slightly lower than the 2022/23 year (77.2% 95% CI 74.6-79.7).

With Overweight not obese
The proportion of children categorised as experiencing 'overweight not obesity' was 13.5% (95% 11.6 – 15.8), which is slightly higher than last year's proportion (12.1% 95% CI 10.3-14.2).

With obesity
The proportion of children categorised as living with obesity was 10.0% (95% CI 8.3 – 12.0), which is very similar to last year's proportion (9.9% 95% CI 8.2-11.8). This result remains statistically significantly lower compared with the 14.2% (95% CI 12.3 to 16.4) reported in 2018/19. The time trend is shown in Figure 13 with results similar year on year since the pandemic.

Figure 13:



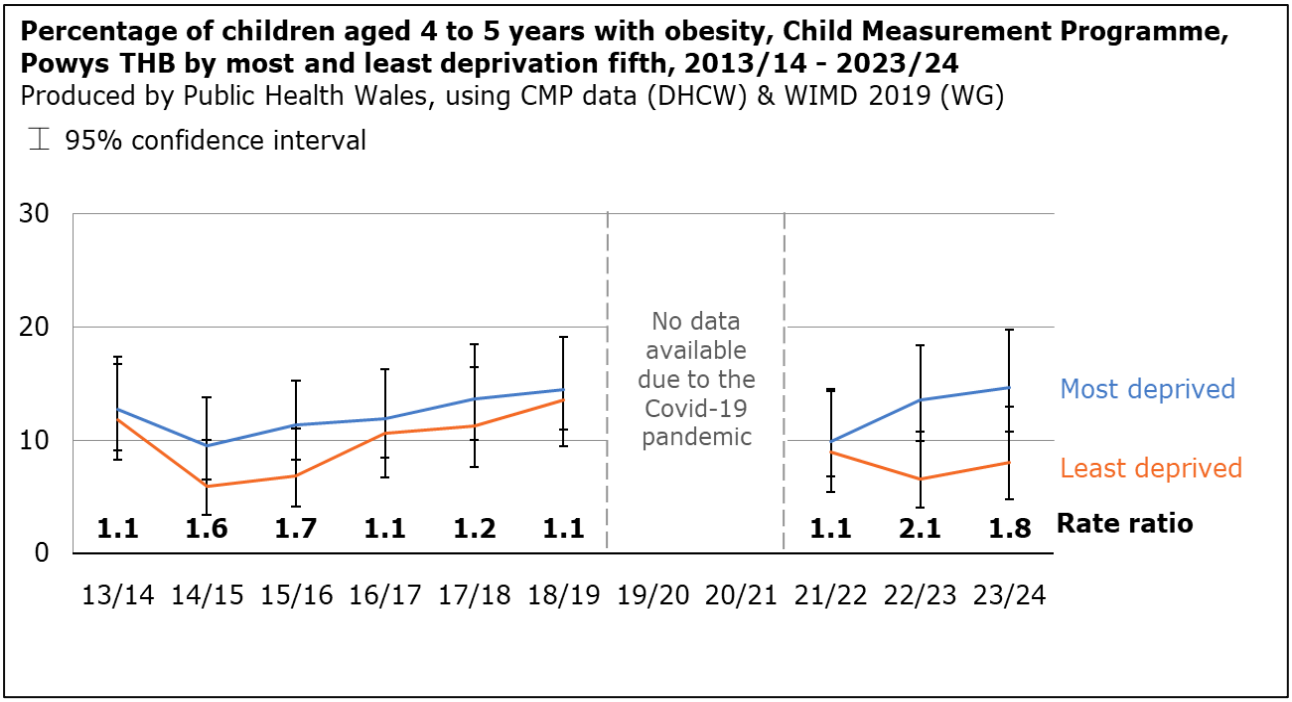
Sex

The proportions across weight measurement categories with sufficient numbers of children for comparison were similar for boys and girls in Powys.

Deprivation

For Powys, there were low numbers of children in each deprivation category. The proportions of children with obesity in the least deprived versus the most deprived quintile was 8.0% (95% CI 4.8-13.0) versus 14.7% (95% CI 10.8-19.8) respectively. The time trends are shown in Figure 14. The rate ratio provides an estimate for the gap between the least and most deprived quintiles. There was some variation in the gap over time, with the larger gaps noted for the 2014/15 and 2015/16 years with subsequent narrowing to the last pre-pandemic observation in 2018/19. Measurement in 2021/22 remained consistent with the 2018/19 observation. However, the gap increased in 2022/23 and slightly reduced this year to 1.8. These observations should be interpreted with caution as the numbers of children in each category are lower in Powys compared with other LHBs and, therefore, more fluctuation is to be expected.

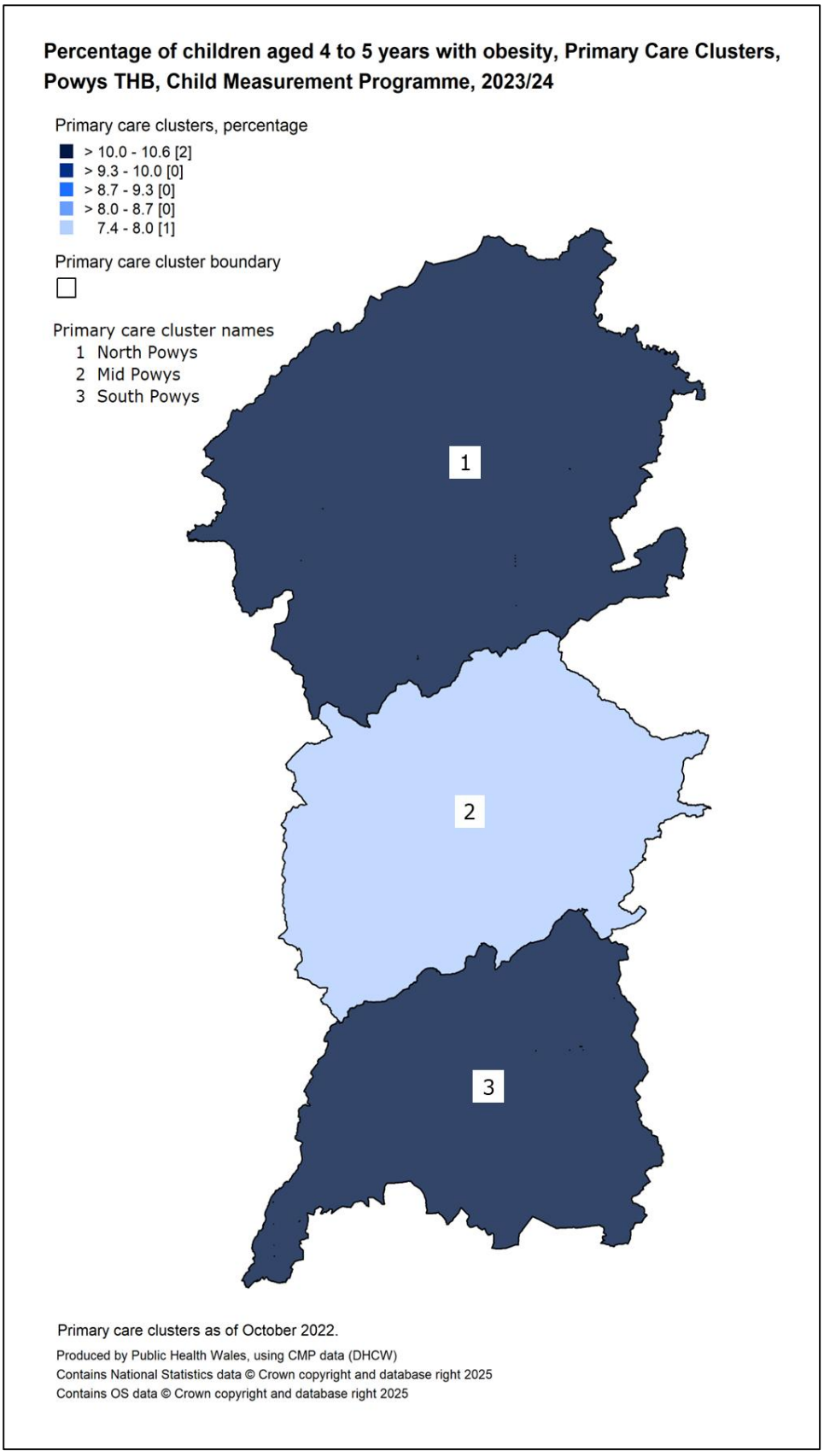
Figure 14:



Primary Care Clusters

The participation proportion was at least 90% for all PCCs. The proportion of children with obesity varied somewhat between primary care clusters, as shown in the thematic map (Figure 15) with a range from 7.4% (95% CI 4.6 – 11.7) in Mid Powys to 10.0% in North Powys and 10.6% in South Powys (95% CIs 7.7-12.9 and 7.7-14.4 respectively).

Figure 15:


Percentage of children aged 4 to 5 years with obesity, Primary Care Clusters, Powys THB, Child Measurement Programme, 2023/24
Primary care clusters, percentage
> 10.0 - 10.6 [2]
> 9.3 - 10.0 [0]
> 8.7 - 9.3 [0]
> 8.0 - 8.7 [0]
7.4 - 8.0 [1]
Primary care cluster boundary
Primary care cluster names
1 North Powys
2 Mid Powys
3 South Powys
1
2
3
Primary care clusters as of October 2022.
Produced by Public Health Wales, using CMP data (DHCW)
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Hywel Dda University Health Board

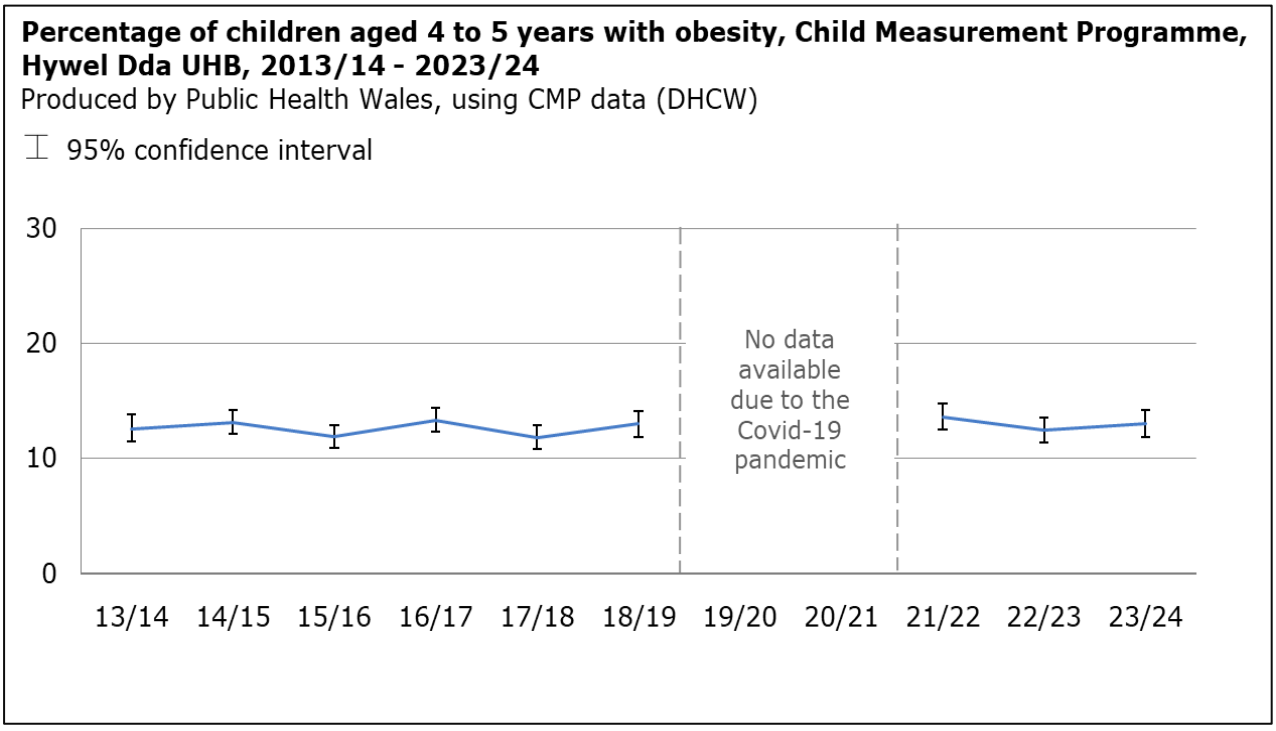
The overall participation proportion was 95.0% across Hywel Dda University Health Board, up from 93.0% last year and nearly back to the 95.8% reported for 2018/19. There were six children that were opted out of the programme. The participation proportion breakdown by LA regions was: Ceredigion 96.4%; Pembrokeshire 94.0%; Carmarthenshire 95.1%.

With underweight and healthy weight
The numbers of children categorised as experiencing underweight were small and represented 0.8% (95% CI 0.5-1.1), similar to last year at 0.7% (95% CI 0.5-1.0). The proportion of children categorised as having a healthy weight was 70.0% (95% CI 68.4-71.5), also similar to last year at 70.5% (95% CI 68.9-72.0) and similar to pre-pandemic at 70.6% (95% CI 69.1 to 72.0) in 2018/19.

With overweight not obesity
The proportion of children categorised as experiencing 'overweight not obesity' was 16.2% (95% CI 15.0 – 17.5), which is similar to 16.4% last year (95% CI 15.2-17.7) and was similar to the proportion of 16.2% (95% CI 15.0 to 17.4) observed pre-pandemic in the 2018/19 report.

With obesity
The proportion of children categorised as having obesity was 13.0 (95% CI 11.9 – 14.2) and was slightly higher compared to last year (12.5% 95% CI 11.4-13.6). The time trend is shown in Figure 16. At LA level the proportion with obesity in Carmarthenshire was slightly higher at 14.1% (95% CI 12.6-15.9) compared with the two other LAs.

Figure 16:



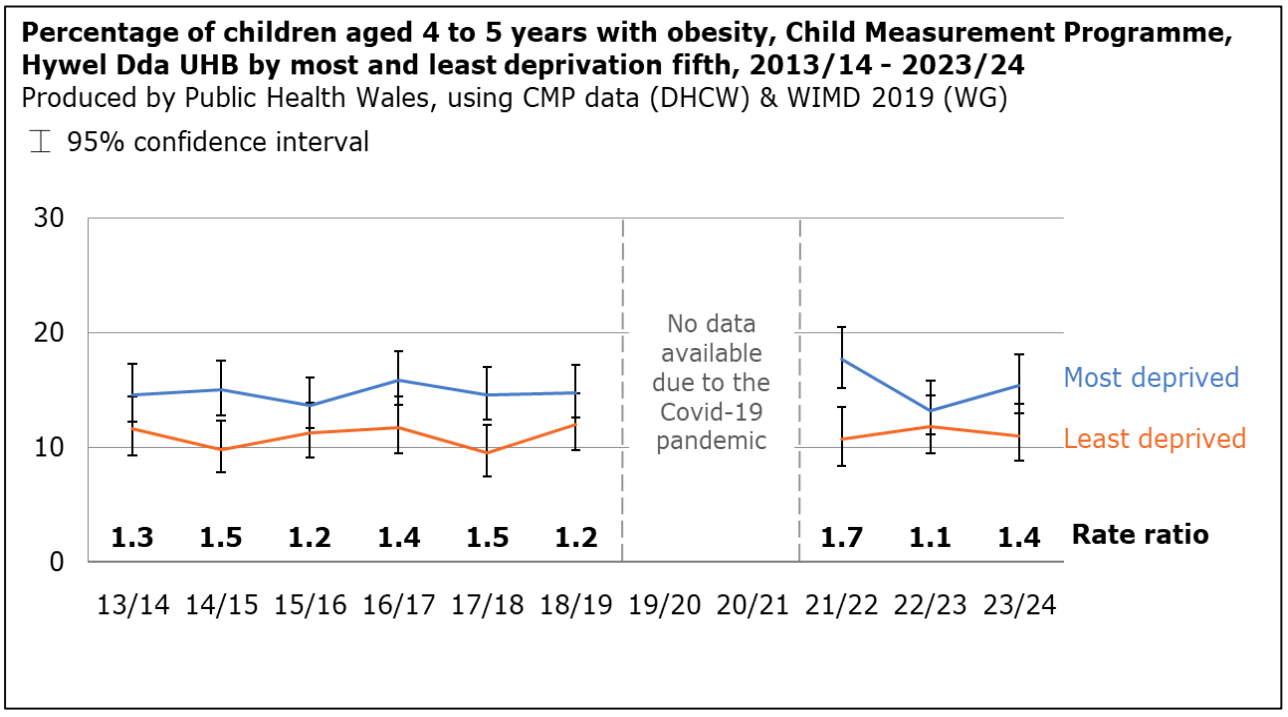
Sex

Most proportions across weight measurement categories were similar for boys and girls at LHB level. However, the proportion with healthy weight or underweight was slightly higher for boys compared with girls at 71.8% (95% CI 69.6 – 73.9) versus 69.6% (95% CI 67.4-71.8) respectively.

Deprivation

At UHB level the proportion categorised as living with obesity in the most deprived quintile was 15.4% (95% CI 13.0 – 18.1) compared with 11.0% (95% CI 8.8-13.8) in the least deprived. The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 17. The rate ratio provides a relative estimate for the gap between the least and most deprived quintiles. There is some variation in the gap over time, with no clear trend. However, the gap seems to have widened again in 2023/24. This result should be interpreted with caution as we only have three data points since the pandemic and there are broad confidence intervals suggesting the potential for variation simply due to small numbers in the measured population.

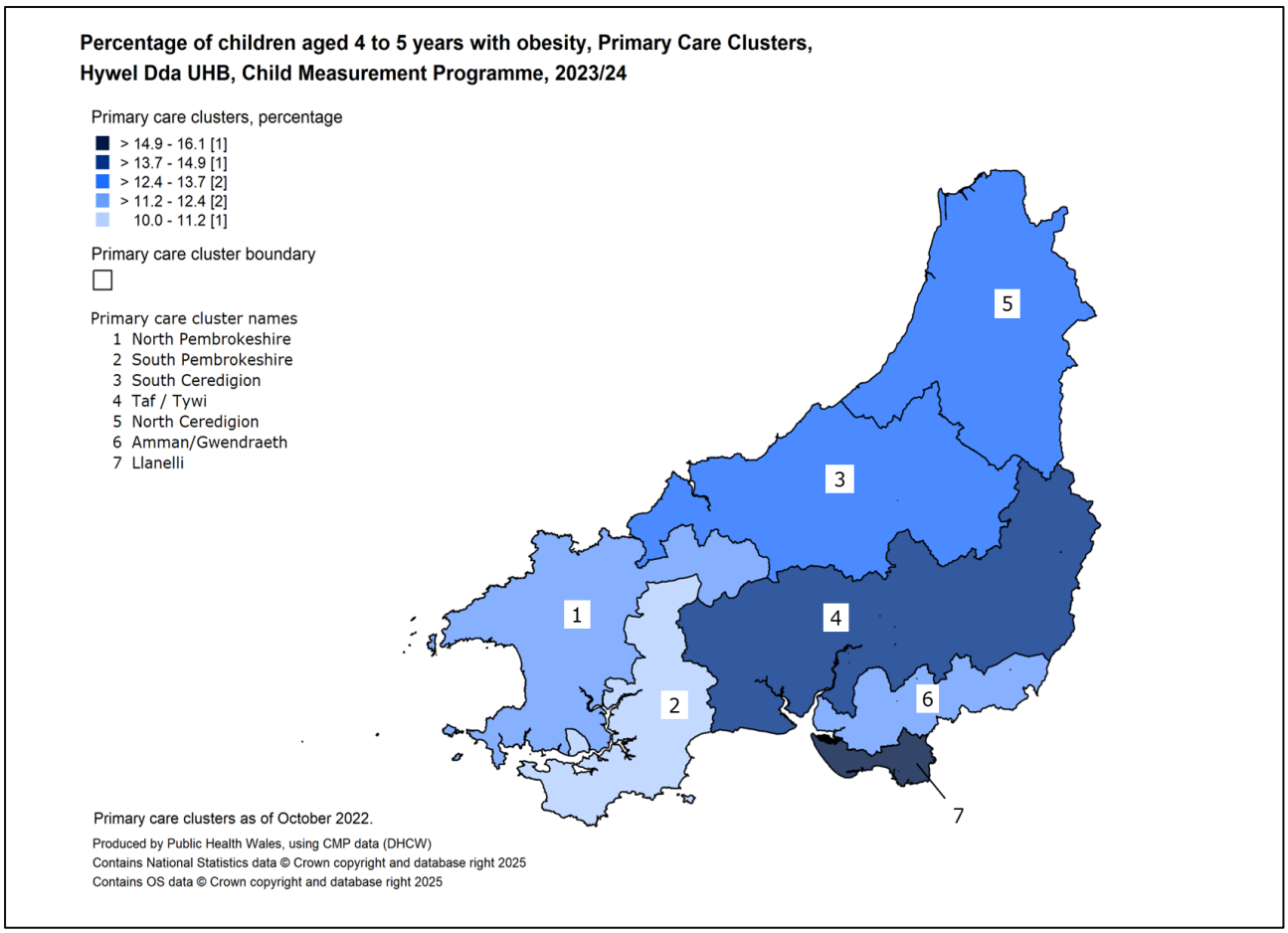
Figure 17:



Primary Care Clusters

The participation was at least 93.2% for each PCC. The proportion of children with obesity varied across primary care clusters, as shown in the thematic map (Figure 18) with a range from 10.0% (95% CI 7.6-13.1) in South Pembrokeshire to 16.1% (95% CI 13.4- 19.3) in Llanelli.

Figure 18:


Percentage of children aged 4 to 5 years with obesity, Primary Care Clusters, Hywel Dda UHB, Child Measurement Programme, 2023/24
Primary care clusters, percentage
> 14.9 - 16.1 [1]
> 13.7 - 14.9 [1]
> 12.4 - 13.7 [2]
> 11.2 - 12.4 [2]
10.0 - 11.2 [1]
Primary care cluster boundary
Primary care cluster names
1 North Pembrokeshire
2 South Pembrokeshire
3 South Ceredigion
4 Taf / Tywi
5 North Ceredigion
6 Amman/Gwendraeth
7 Llanelli
1
2
3
4
5
6
7
Primary care clusters as of October 2022.
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Swansea Bay University Health Board

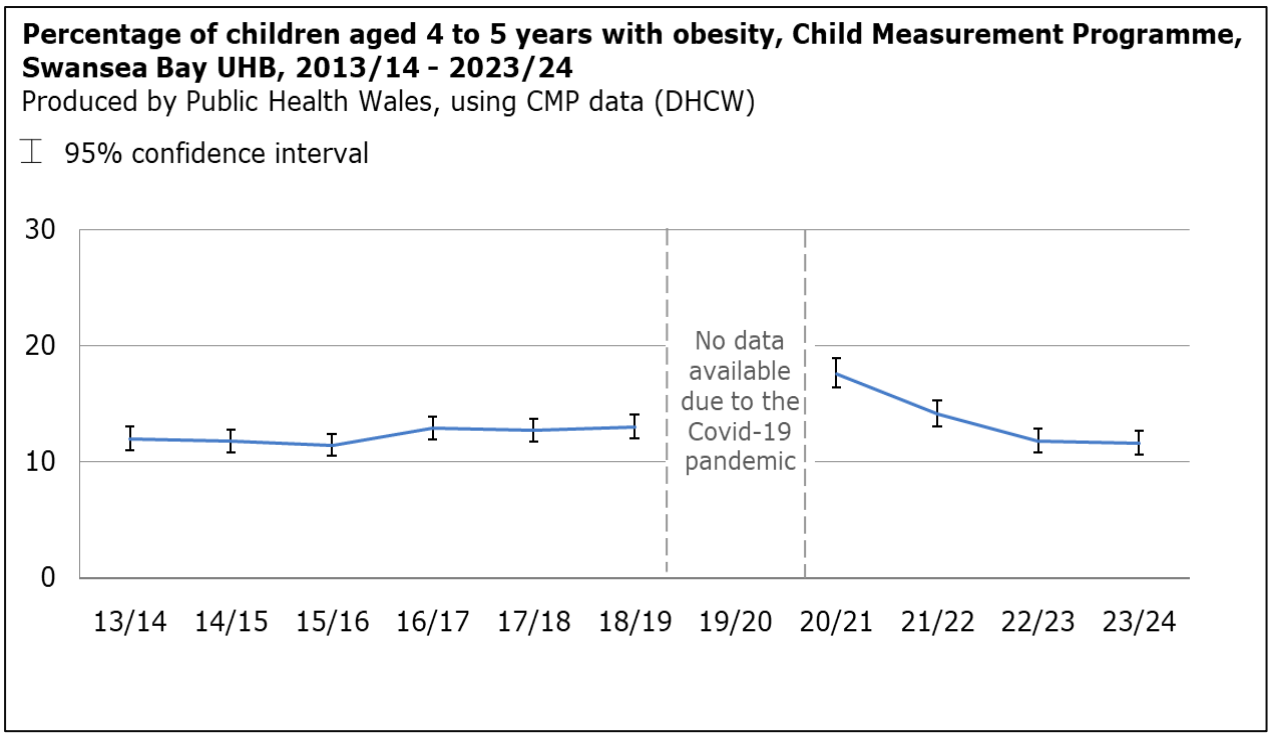
The overall participation proportion was 92.7% across Swansea Bay University Health Board (SBUHB), an increase compared to last year (90.8%). For Swansea and Neath Port Talbot LA regions the participation proportions were 92.4% and 93.1%, both higher than last year (90.2% and 91.9% respectively). The exact number of children that opted out of the programme was too low to report. Participation has not yet reached the pre-pandemic proportion of 95.4% achieved in 2018/19.

With underweight and healthy weight
The number of children categorised as experiencing underweight represented 0.9% (95% CI 0.7 – 1.3) of the cohort, which is similar to last year (0.8% 95% CI 0.5-1.1). The proportion of children categorised as having a healthy weight was 73.7% (95% CI 72.2-75.1). This was similar to last year (73.8% 95% CI 72.3-75.2).

With overweight not obesity
The proportion of children categorised as experiencing 'overweight not obesity' was similar at 13.8% (95% CI 12.7-14.9) compared with 13.7% (95% CI 12.6-14.8) last year. The proportion with overweight not obesity in 2023/24 was higher in Neath Port Talbot at 15.5% (95% CI 13.6-17.6) compared with Swansea at 12.8% (95% CI 11.5-14.2). This was a similar pattern to the 2022/23 data.

With obesity
The proportion of children categorised as having obesity was 11.6% (95% CI 10.6-12.7). This was similar to last year (11.8% 95% 10.8-12.9) but still statistically significantly lower than the previous year (2021/22) at 14.1% (95% CI 13.0-15.3). It was also lower than the pre-pandemic reported proportion of 13.0% (95% CI 12.0 to 14.1) in 2018/19. The time trend is shown in Figure 19. The trend from 2020/21 appears to be a stark reduction. However, the 2020/21 observations were during the pandemic where a rise in proportions with obesity was noted across Wales. We can cautiously state that the reduction in the proportion of children with obesity is levelling off. However, this trend must be interpreted with caution until further data observations are added in future years.

Figure 19:



Sex

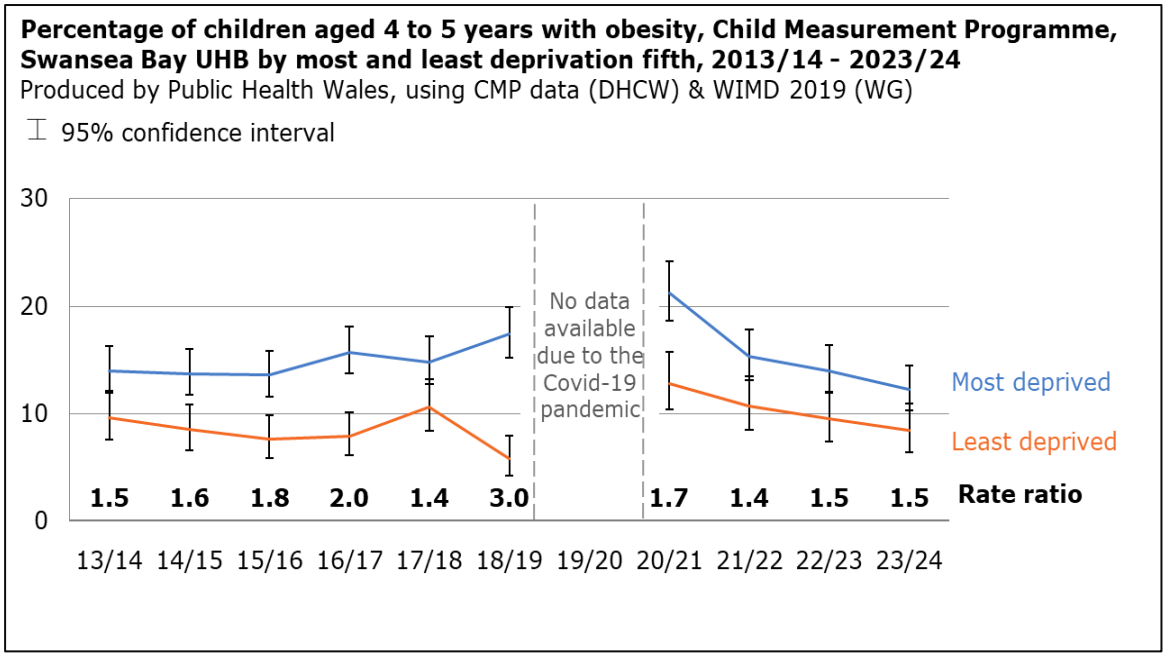
There were some differences between girls and boys. The proportion of boys with obesity was slightly higher at 12.2% (95% CI 10.7-13.8) compared with girls at 11.0% (95% CI 9.7-12.6). However, the proportion of boys with overweight not obesity was lower at 12.8% (95% CI 11.3-14.4) compared with girls at 14.8% (95% CI 13.2-16.5). The proportion with a healthy weight was the same, at 73.7% for boys and girls.

Deprivation

At LHB level a higher proportion of children were categorised as having obesity in the most deprived quintile compared with the least deprived, 12.2% (95% CI 10.3 – 14.5) compared to 8.4% (95% CI 6.4 – 10.9) respectively. At Swansea LA level this difference was statistically significant with 7.5% (95% CI 5.3-10.5) in the least deprived quintile versus 13.6% (95% CI 11.2-16.5) in the most deprived quintile. Unusually, the middle fifth had the highest average proportion of children with obesity (16.9% 95% CI 12.8 – 21.9) in Neath Port Talbot. However, due to the size of the cohorts and breadth of the confidence intervals, caution should be taken when interpreting these data.

The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 20. The rate ratio provides a relative estimate for the gap between the least and most deprived quintiles. There was variation in the relative gap over time, with the largest relative gap observed at the pre-pandemic measurement in 2018/19. The relative gap observed in 2020/21 was lower than pre-pandemic, with a further reduction for 2021/22. The gap is the same this year compared to last year at 1.5. Given the prior fluctuation and limited post-pandemic data points, these findings should be interpreted with caution.

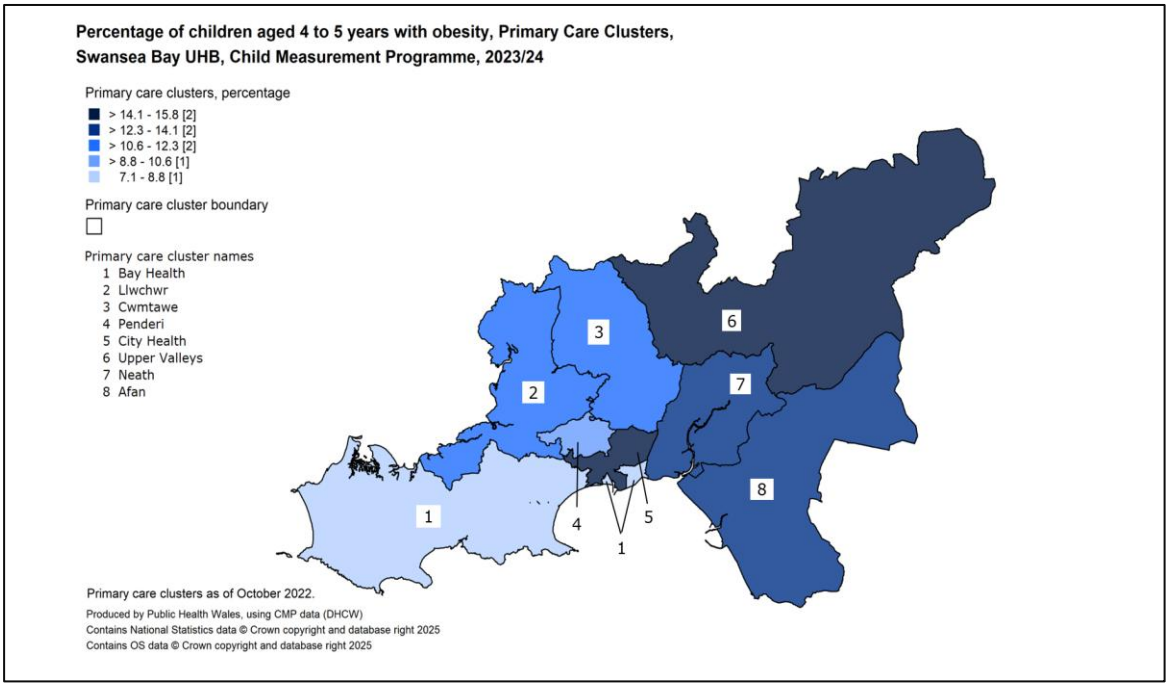
Figure 20:



Primary Care Clusters

The proportion of children with obesity varied across primary care clusters, as shown in the thematic map (Figure 21), with a range from 7.1 (95% CI 5.2- 9.6) in Bay Health to 15.8% (95% CI 11.9-20.8) in Upper Valleys. This was a statistically significant difference. Bay Health had a significantly lower proportion of children categorised as 'having obesity' compared to Afan, City Health, Neath and Upper Valleys.

Figure 21:



Cwm Taf Morgannwg University Health Board

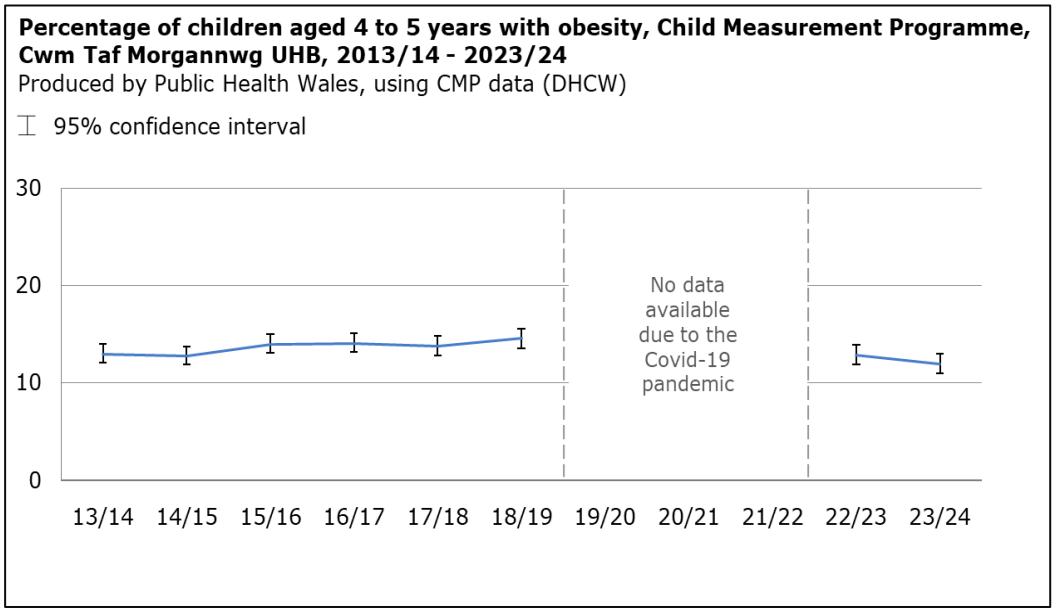
This was the second reporting year for Cwm Taf Morgannwg University Health Board (CTMUHB) since the 2018/19 pre-pandemic year. The overall participation proportion was 92.4%, an increase from 89.5% last year but lower than the 95.5% observed pre-pandemic in 2018/19. The participation by LA region was: Rhondda Cynon Taf 91.0%; Merthyr Tydfil 91.5%; Bridgend 95.3%. The number of children that were opted out of the programme was 7.

With underweight and healthy weight
The proportion of children categorised as experiencing underweight was small at 1.0% (95% CI 0.7-1.4) of the cohort. This was higher than the 0.5% (95% CI 0.3-0.8) observed in 2018/19 but similar to last year's result (1.0% 95% CI 0.8 – 1.4). However, this should be interpreted in the context of low numbers of children within this category. The proportion of children categorised as having a healthy weight was 73.5% (95% CI 72.1 – 74.8), which is higher than last year (72.0% 95% CI 70.7-73.3) and higher than the 70.2% (95% CI 68.9-71.4) observed in 2018/19.

With overweight not obesity
The proportion of children categorised as experiencing 'overweight not obesity' was 13.5% (95% CI 12.5 – 14.6), which is lower than last year at 14.1% (95% CI 13.1-15.1) and lower still compared with 14.7% (95% CI 13.8-15.8) observed in 2018/19. The proportion with 'overweight not obesity' was higher in Merthyr Tydfil at 15.2% (95% CI 12.5-18.3) compared with the other two LAs.

With obesity
The proportion of children categorised as having obesity was 12.0% (95% CI 11.0 – 13.0), which is lower than last year (12.9% 95% CI 11.9-13.9) and statistically significantly lower than pre-pandemic levels (14.6% 95% CI 13.6-15.6) observed in 2018/19. The time trend is shown in Figure 22. There was an upward trend pre-pandemic. However, the 2022/23 and 2023/24 observations are lower. This should be interpreted with caution as there are only two observations since the pandemic.

Figure 22:

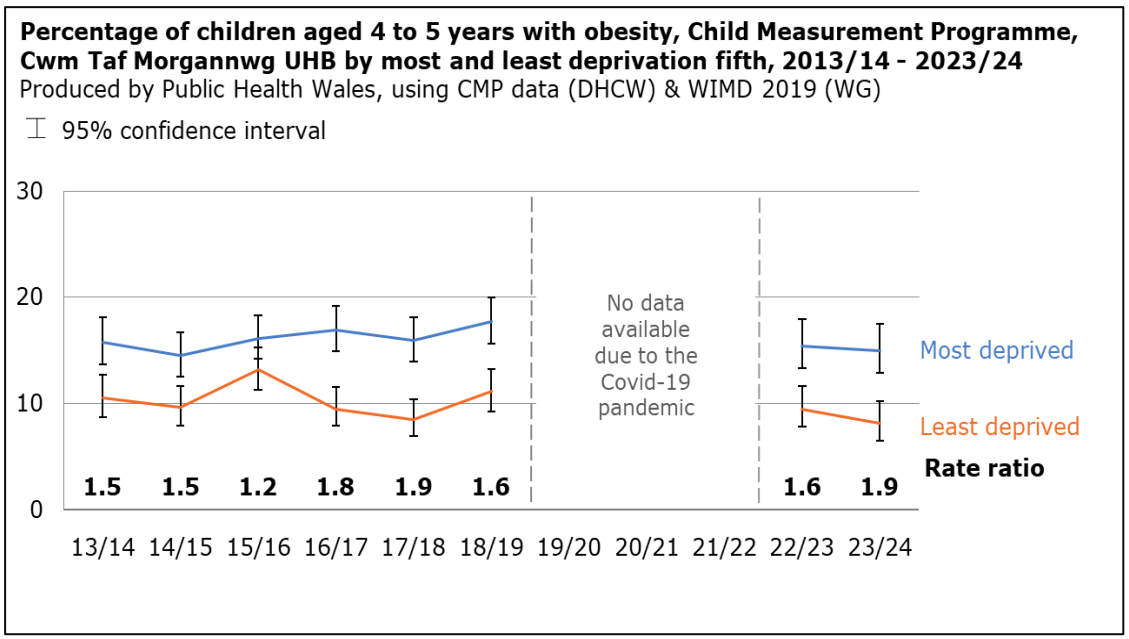


Sex
The proportions across weight measurement categories were similar for boys and girls at UHB level. However, the proportion of boys with obesity was slightly lower at 9.3% (95% CI 7.4 – 11.7) in Bridgend compared to the UHB proportion at 11.5% (95% CI 10.2 – 12.9).

Deprivation
At LHB level a higher proportion of children were categorised with obesity in the most deprived quintile compared with the least deprived, with proportions of 8.1% (95% CI 6.5-10.2) in the least deprived versus 15.0% (95% CI 12.9 – 17.5). This difference was statistically significant. At Bridgend LA level this trend was also statistically significant with 7.2% (95% CI 4.6-11.1) in the least deprived versus 15.4% (95% CI 11.8-20.0) in the most deprived quintiles. The patterns were not as clearly observed for Rhondda Cynon Taf and Merthyr. For Rhondda Cynon Taf, the proportion of children with obesity was highest in the most deprived fifth. For Merthyr, the proportion with obesity was highest in the next most deprived fifth, although, the numbers of children in each deprivation fifth were low.

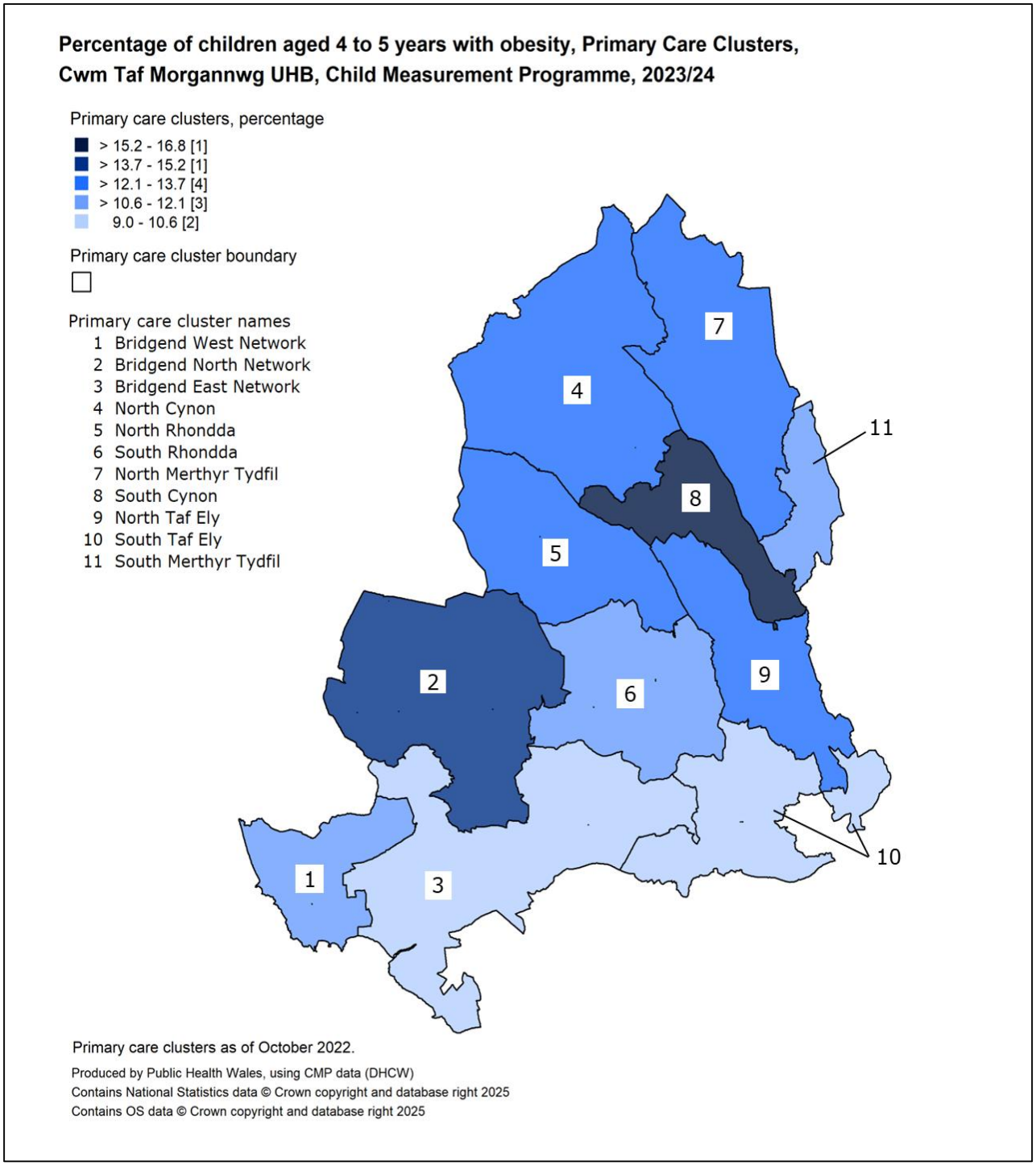
The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 23. The rate ratio provides a relative estimate for the gap between the least and most deprived quintiles. Pre-pandemic there was variation in the relative gap over time. This year, the ratio has increased to 1.9, similar to the pre-pandemic peak observed in 2017/18.

Figure 23:



Primary Care Clusters
The participation percentage for each cluster was 86.2% or higher. The proportion of children with obesity varied across primary care clusters, as shown in the thematic map (Figure 24). South Cynon had a higher proportion of children with obesity 16.8% (95% CI 12.8 – 21.7) compared to Bridgend East Network and South Taf Ely, which had proportions of 9.3% (95% CI 7.5 – 11.4) and 9.0 (95% CI 6.6 – 12.2), respectively. These differences were statistically significant.

Figure 24:


Percentage of children aged 4 to 5 years with obesity, Primary Care Clusters, Cwm Taf Morgannwg UHB, Child Measurement Programme, 2023/24
Primary care clusters, percentage
> 15.2 - 16.8 [1]
> 13.7 - 15.2 [1]
> 12.1 - 13.7 [4]
> 10.6 - 12.1 [3]
9.0 - 10.6 [2]
Primary care cluster boundary
Primary care cluster names
1 Bridgend West Network
2 Bridgend North Network
3 Bridgend East Network
4 North Cynon
5 North Rhondda
6 South Rhondda
7 North Merthyr Tydfil
8 South Cynon
9 North Taf Ely
10 South Taf Ely
11 South Merthyr Tydfil
Primary care clusters as of October 2022.
Produced by Public Health Wales, using CMP data (DHCW)
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Cardiff and Vale University Health Board

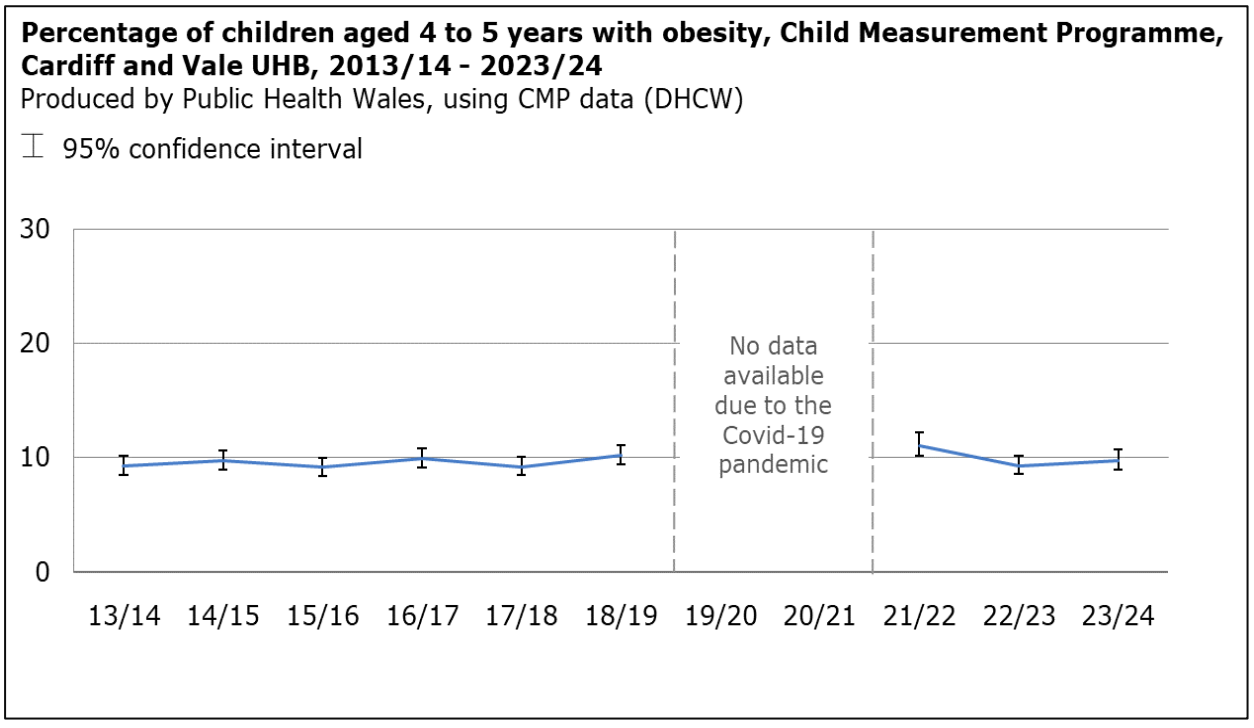
The overall participation proportion was 93.5% across Cardiff and Vale University Health Board (CAVUHB), up from 90.6% last year and 82.7% in 2018/19. There were 13 children that were opted out of the programme. The participation proportion breakdown by LAs was: Vale of Glamorgan 92.6%; Cardiff 93.8%.

With underweight and healthy weight
The numbers of children categorised as living with underweight were small at 1.5% (95% CI 1.1 – 1.8), but higher than 1.3% (95% CI 1.0-1.7) observed last year. The proportion of children with underweight was similar to the 2018/19 proportion of 1.4% (95% CI 1.1 to 1.8). The proportion of children categorised as having a healthy weight was 77.7% (95% CI 76.5 – 78.8), which is similar to last year's proportion of 77.5% (95% CI 76.3-78.6). This result remains statistically significantly higher than the 74.6% (95% CI 73.2-75.9) reported in 2021/22.

With overweight not obesity
The proportion of children categorised as experiencing 'overweight not obesity' was 11.1% (95% CI 10.2 – 12.0), which is slightly lower compared to that observed last year at 11.9% (95% CI 11.0-12.8).

With obesity
The proportion of children categorised as having obesity was 9.8% (95% CI 9.0 – 10.7), which is slightly higher compared to last year (9.3% 95% CI 8.6-10.2). This year's result was lower than observed in 2021/22 at 11.1% (95% CI 10.2-12.2) and pre-pandemic at 10.2% (95% CI 9.4-11.1) reported in 2018/19. The time trend is shown in Figure 25.

Figure 25:



Sex

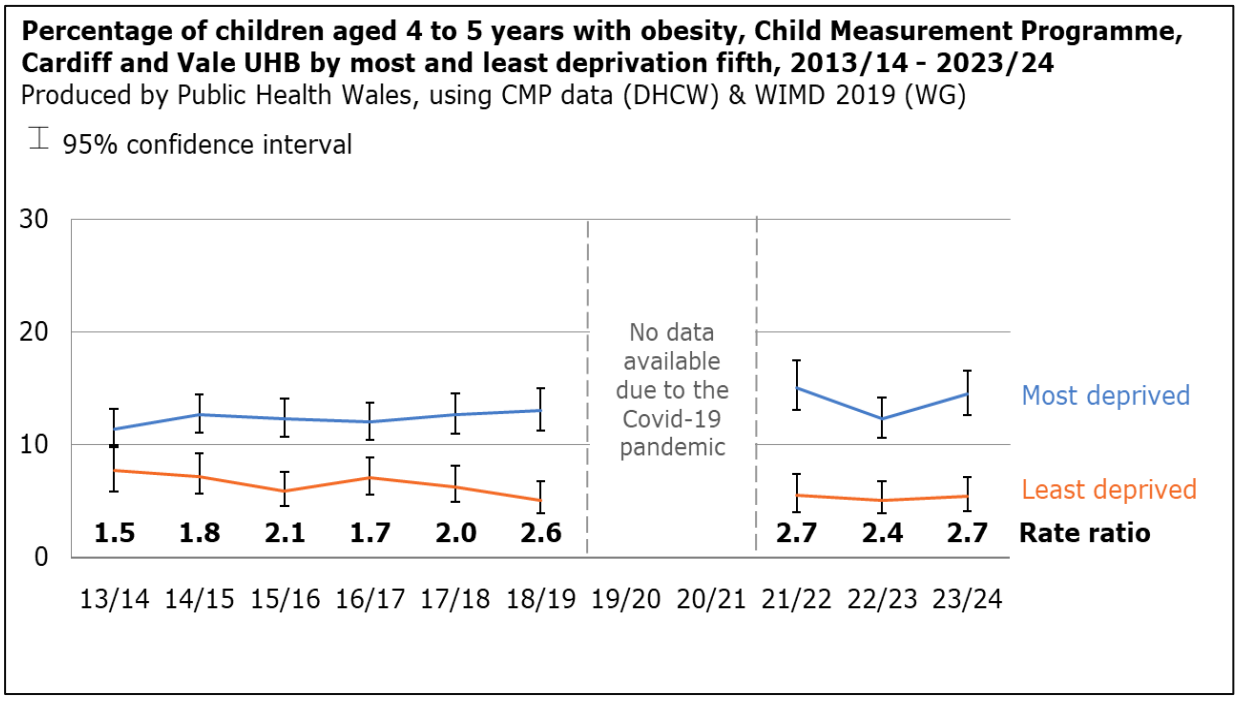
There was variation amongst some weight categories between boys and girls. At UHB level, there was a statistically significant lower proportion of boys living with a healthy weight compared to girls, 75.6% (95% CI 73.8 – 77.3) compared to 79.8% (95% CI 78.1 – 81.4). Boys also had a statistically significantly higher proportion living with underweight at 2.3% (95% CI 1.8 – 3.0) compared to girls at 0.6% (95% CI 0.3 – 0.9). There was a slightly higher proportion of boys living with obesity at 10.5% (95% CI 9.4 – 11.8) compared to girls at 9.0% (95% CI 7.9 – 10.2).

Deprivation

At Health Board level there was a statistically significantly higher proportion categorised as having obesity in the most deprived quintile (14.5%, 95% CI 12.6-16.6) and next most deprived quintile (10.6% 95% CI 8.9 – 12.7) compared with the least deprived fifth (5.4%, 95% CI 4.1-7.1). A similar trend was observed in the Vale of Glamorgan with a statistically significant difference between the most deprived quintile proportion at 17.6% (95% 13.6 – 22.6) compared to 8.2% (95% CI 5.0 – 13.0) in the least deprived fifth. Similarly in Cardiff, there was a statistically significant difference: 5.4% (95% CI 3.9 – 7.3) in the least deprived versus 14.1% (95% 12.0 – 16.5) in the most deprived and 10.0% (95% CI 8.0 – 12.4) in the next most deprived fifth.

The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 26. The rate ratio provides an estimate for the gap between the least and most deprived quintiles. There was some variation in the gap over time. Following a slight narrowing last year, the gap has widened to the same value as was observed in 2021/22.

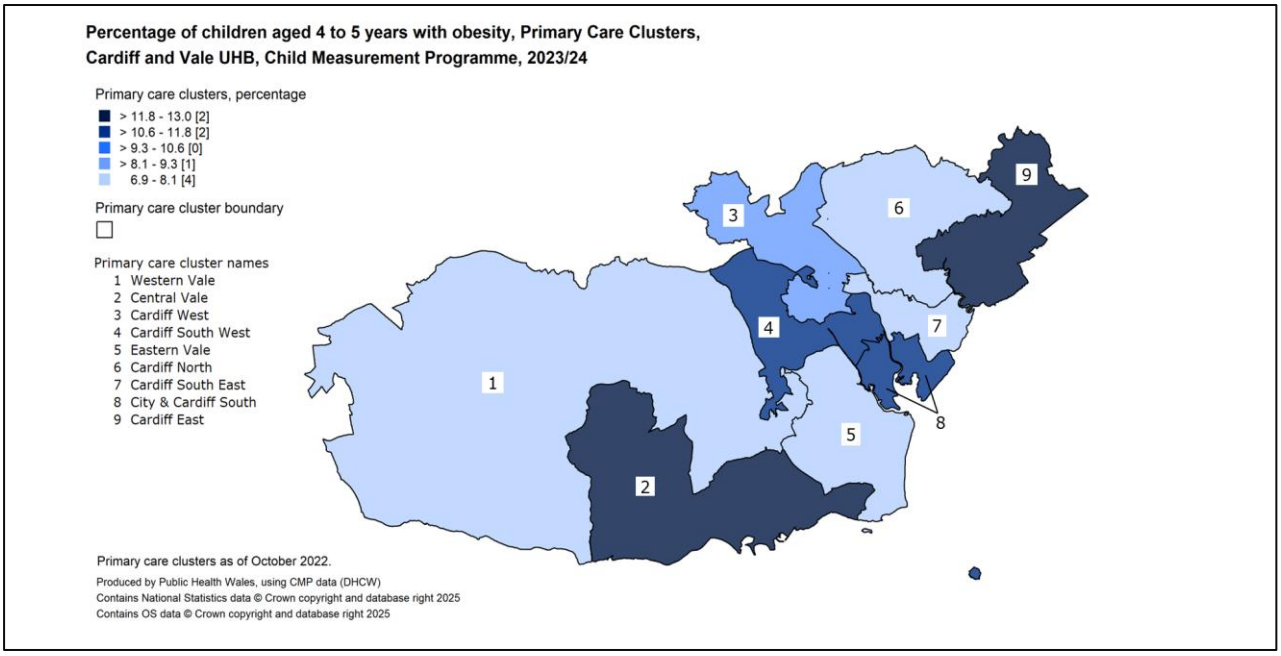
Figure 26:



Primary Care Clusters

The participation proportion was 92.0% and above for all PCCs. The proportion of children with obesity varied across clusters, as shown in the thematic map (Figure 27), with a range from 6.9% (95% CI 4.6 – 10.2) in Eastern Vale to 13.0% (95% CI 10.6 – 16.0) in Cardiff East. This difference was statistically significant. Furthermore, statistically significant differences in terms of higher and lower proportions with obesity were also noted for Cardiff North at 7.6% (95% CI 6.1 – 9.5) versus Central Vale at 12.8% (95% CI 10.4 – 15.6) and Cardiff East at 13.0% (95% CI 10.6 – 16.0).

Figure 27:



Aneurin Bevan University Health Board

The overall participation proportion was 91.6% across Aneurin Bevan University Health Board (ABUHB), which is lower than the 94.0% achieved last year. There were 35 children that were opted out of the programme this year. The number of children that opted out of the programme was reported differently last year, which limits comparison. Last year, the number of 'opt outs' was a sum of those children who were opted out of the programme combined with the number of unobtainable accurate measurements. The combined number of opt outs and unobtainable accurate measurements was 137 last year. ABUHB still contributed the highest number of opt outs accounting for 43.2% of all opt outs in Wales. Aneurin Bevan also reported 102 unobtainable accurate measurements, accounting for 87.2% of all the unobtainable measurements across Wales. Unobtainable accurate measurements are defined as children who could not be measured.

The participation proportion breakdown by LA regions was: Caerphilly 94.6%, Blaenau Gwent 92.6%; Torfaen 81.8%; Monmouthshire 96.4%; Newport 91.7%. The Torfaen participation proportion decreased from 95.1% last year to 81.8% this year. Torfaen was the only LA region across Wales to have a participation proportion of less than 90%. This appears to be driven by a low participation in one PCC region, Torfaen South, for which the participation was 72.2% (compared with 93.7% in Torfaen North). All other PCCs in Wales had participation over 86%.

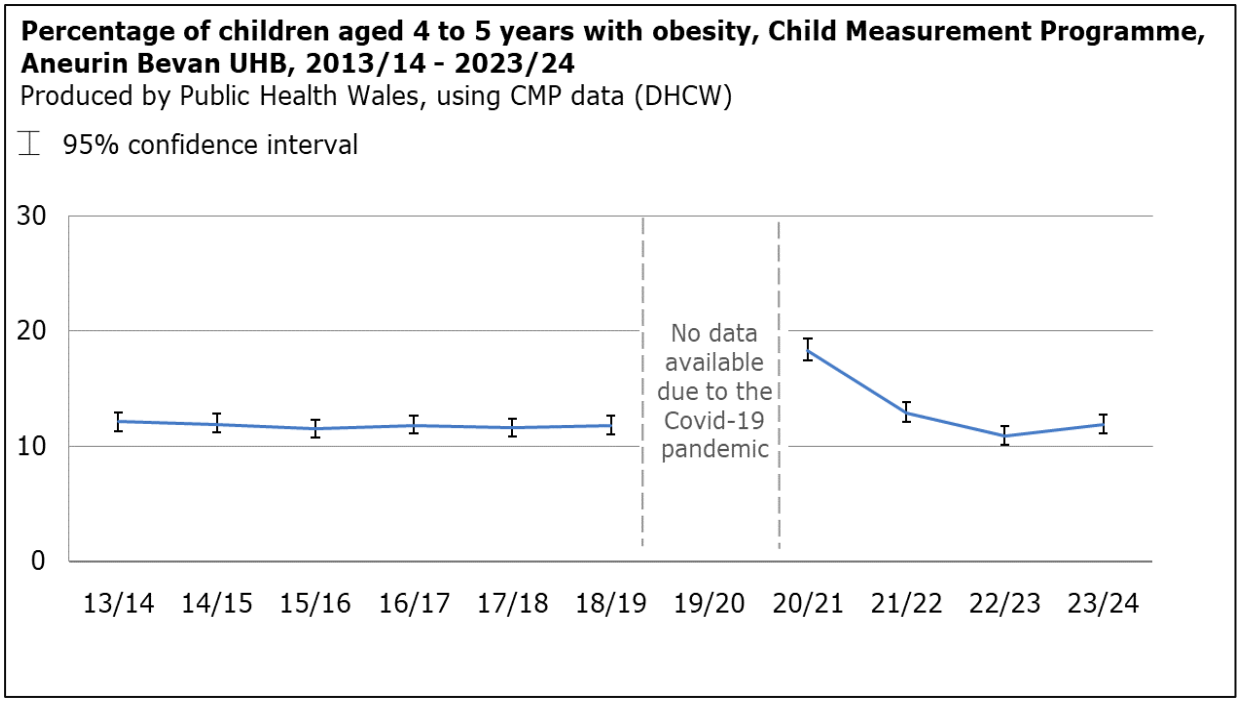
With underweight and healthy weight
The number of children categorised as living with underweight was small and represented 0.9% (95% CI 0.7 – 1.2%). This proportion is smaller compared to last year when the proportion was 1.2% (95% CI 0.9 – 1.5).

The proportion of children categorised as having a healthy weight was 74.2% (95% CI 73.1 – 75.3), which is a slight decrease compared to last year, 75.9% (95% CI 74.8-76.9).

With overweight not obesity
The proportion of children categorised as experiencing 'overweight not obesity' was 13.0% (95% CI 12.2 – 13.9), slightly higher than last year, which was 12.1% (95% CI 11.3-12.9). There was some variation amongst local authorities, with Torfaen's proportion of children with overweight not obesity at 15.1% (95% CI 12.9 – 17.7), compared to Newport at 12.4% (95% CI 11.0 – 13.9).

With obesity
The proportion of children categorised as having obesity was 11.9% (95% CI 11.1 – 12.7), which is higher than last year's proportion of 10.9% (95% CI 10.1-11.7). The time trend is shown in Figure 28. The initial increase in the proportion with obesity observed during the pandemic in 2020/21 has decreased to similar proportions as seen pre-pandemic. This post-pandemic trend is difficult to interpret, having fallen steeply and then risen slightly again and, therefore, must be interpreted with caution until further data observations are added in future years.

Figure 28:



Sex

The proportions of healthy weight and obesity were similar between boys and girls. The proportion living with underweight was higher for boys at 1.2% (95% CI 0.9 – 1.7) compared to girls at 0.6% (95% CI 0.4 – 0.9). The results for the proportion of children living with 'overweight not obesity' were higher for girls compared with boys at 13.4% (95% CI 12.2-14.7) compared with 12.6% (95% CI 11.5-13.9) respectively. The proportion of children living with obesity were similar for boys and girls. There were some small differences observed at LA level. These can be viewed in the data tables available on the CMP website.

Deprivation

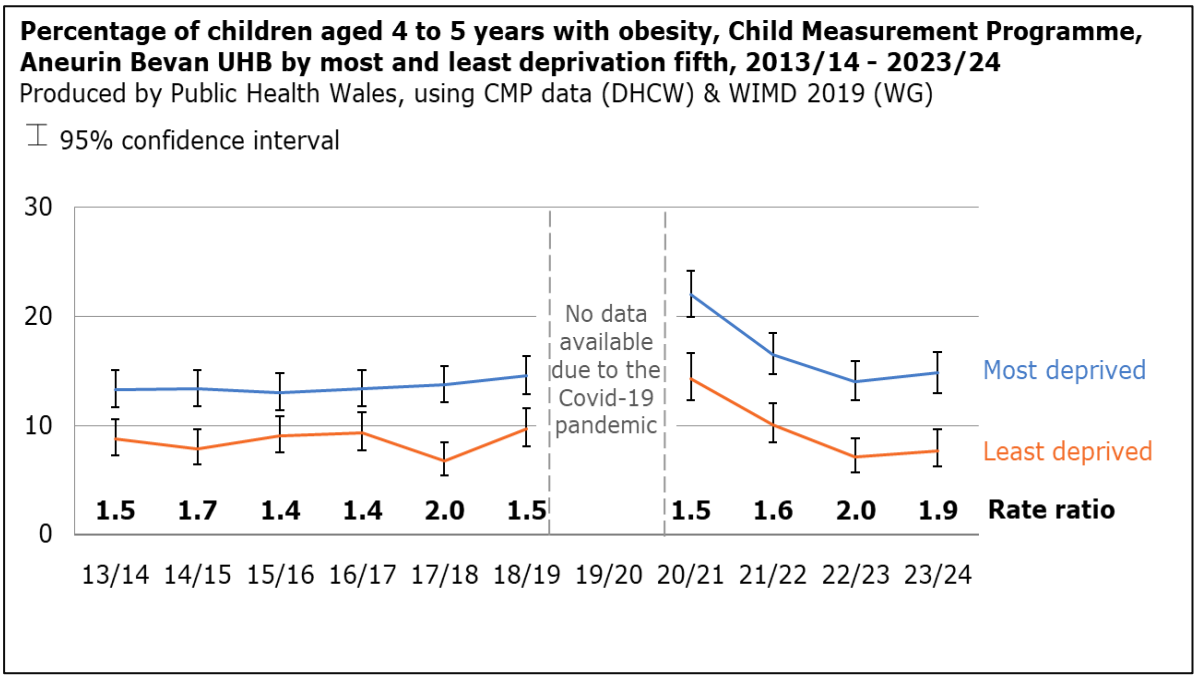
At Health Board level the proportion of children with obesity in the least deprived quintile was statistically significantly lower at 7.7 % (95% CI 6.2 - 9.6) compared with the most deprived at 14.8% (95% CI 13.0 – 16.7) and the next most deprived 13.4% (95% CI 11.5 – 15.4).

The proportion with obesity in the least deprived fifth was also noted to be lower compared to the proportion in the most deprived fifth for all LAs. However, a stepwise dose response (meaning a clear trend from top to bottom) effect when moving from one deprivation fifth to the next was not always apparent at LA level. For example, occasionally the highest proportion of children with obesity was not observed in the most deprived fifth. Please see the data tables for additional detail. Also, please note that low numbers of children in some categories, particularly in the smaller LAs means that 95% CIs are wide and that results should be interpreted with caution.

A statistically significant difference was observed for the difference in proportion with obesity in the least deprived compared with the most deprived fifths in Caerphilly (9.3%, 95% CI 6.5-13.2 versus 18.2%, 95% CI 14.6-22.3).

The proportions of children with obesity in the least deprived versus the most deprived quintiles over time are shown in Figure 29. The rate ratio provides a relative estimate for the gap between the least and most deprived quintiles. There was some variation in the gap over time pre-pandemic. Then, from 2020/21 to 21/22 the gap did not appear to widen following the pandemic. However, the 2022/23 observation has shown a wider gap, that has remained similar in 2023/24. This finding must be interpreted with caution as there are not yet enough data points to confirm a trend.

Figure 29:



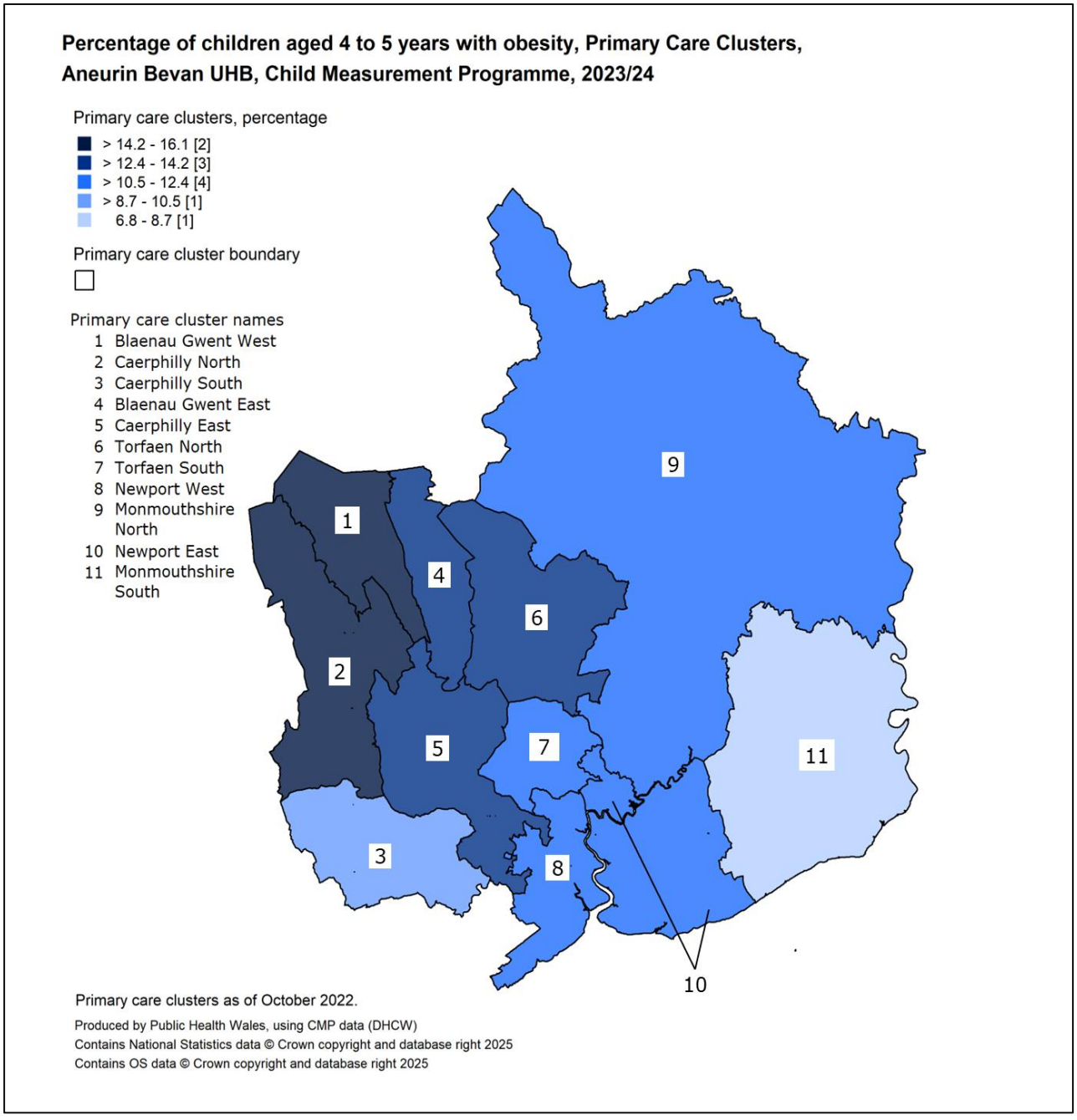
Primary Care Clusters

The participation proportion for Torfaen South was lower than all other PCCs at 72.2%. This has been considered earlier in this section. A lower participation rate does increase the uncertainty of the report's findings and limitations in interpretation of the data. Caerphilly North had the lowest percentage of those living with 'healthy weight or underweight' at 68.3% (95% CI 64.4 – 71.9), which was statistically significantly lower than Caerphilly South (78.7% 95% CI 75.1 – 81.9), Monmouthshire South (81.0% 95% CI 76.5 – 84.7), Newport East (77.3% 95% CI 74.4 – 80.0) and Newport West (76.4% 95% CI 73.6 – 79.1).

A similar pattern was observed for the prevalence of those living with obesity, where in Caerphilly North the prevalence was 16.1% (95% CI 13.4 – 19.3) compared to Caerphilly South at 10.2% (95% CI 7.9 – 13.0), Monmouthshire South at 6.8% (95% CI 4.6 – 9.9), Newport East at 10.8% (95% CI 8.9 – 13.0), Newport West at 10.8% (95% CI 8.9 – 13.0). These are statistically significant differences.

Monmouthshire South had the lowest proportion of those living with obesity at 6.8% (95% CI 4.6 – 9.9). This was statistically significantly lower than Blaenau Gwent West (15.1% 95% CI 12.0 – 19.0), Caerphilly East (13.2% 95% CI 10.7 – 16.2), Caerphilly North (16.1% 95% CI 13.4 – 19.3), and Torfaen North (12.8% 95% CI 10.0 – 16.1). The proportion of children with obesity varied across primary care clusters as shown in the thematic map (Figure 30).

Figure 30:


Percentage of children aged 4 to 5 years with obesity, Primary Care Clusters, Aneurin Bevan UHB, Child Measurement Programme, 2023/24
Primary care clusters, percentage
> 14.2 - 16.1 [2]
> 12.4 - 14.2 [3]
> 10.5 - 12.4 [4]
> 8.7 - 10.5 [1]
6.8 - 8.7 [1]
Primary care cluster boundary
Primary care cluster names
1 Blaenau Gwent West
2 Caerphilly North
3 Caerphilly South
4 Blaenau Gwent East
5 Caerphilly East
6 Torfaen North
7 Torfaen South
8 Newport West
9 Monmouthshire North
10 Newport East
11 Monmouthshire South
1
2
3
4
5
6
7
8
9
10
11
Primary care clusters as of October 2022.
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More information

This report provides a summary of the analysis of the child measurements taken for the Child Measurement Programme in Wales. More comprehensive information displayed as tables can be found on our website at Child Measurement Programme NHS Wales. For specific enquiries beyond the information available online, the team can be contacted via e-mail at publichealth.cmp@wales.nhs.uk. For more information about maintaining a healthy weight please go to the Public Health Wales Health Improvement website at: https://everychildwales.co.uk/ and follow the link to the "10 steps to a healthy weight" information.

References

Altman DG et al (2000) Statistics with confidence.2nd ed. BMJ Books: London. pp46.

Dinsdale H, Ridler C and Ells LJ (2011) A simple guide to classifying body mass index in children. Oxford: National Obesity Observatory.

Keys A et al (1972) Indices of relative weight and obesity. J Chronic Dis 25:329-43.

National Child Measurement Programme, England, 2023/24 School Year, NHS England. Available at: National Child Measurement Programme - NHS England Digital

Primary 1 Body Mass Index (BMI) statistics Scotland – School year 2023 to 2024, Public Health Scotland. Available here: Primary 1 Body Mass Index (BMI) statistics Scotland - School year 2023 to 2024 - Primary 1 Body Mass Index (BMI) statistics Scotland - Publications - Public Health Scotland

Welsh Index of Multiple Deprivation (WIMD) 2019, StatsWales, Welsh Government. Information available at: Welsh Index of Multiple Deprivation (gov.wales)

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